

# *Trends in Telephone Service*



*Industry Analysis and Technology Division  
Wireline Competition Bureau*

*September 2010*

This report is available for reference in the FCC's Information Center at 445 12th Street, S.W., Courtyard Level. Copies may be purchased by calling Best Copy and Printing, Inc., Portals II, 445 12th Street S.W., Room CY-B402, Washington DC 20554 at 800-378-3160, facsimile 202-488-5563, or via e-mail [fcc@bcpweb.com](mailto:fcc@bcpweb.com). The report can also be downloaded from the Wireline Competition Bureau Statistical Reports Internet site at: [www.fcc.gov/web/iatd/trends.html](http://www.fcc.gov/web/iatd/trends.html).

## Table of Contents

<b>Introduction.....</b>	<b>1-1</b>
<b>Access Charges.....</b>	<b>1-1</b>
Table 1.1 Interstate Per-Line Access Charges.....	1-3
Table 1.2 Interstate Per-Minute Access Charges.....	1-4
Table 1.3 Interstate Per-Line Access Charges by Carrier.....	1-5
Table 1.4 Interstate Per-Minute Access Charges by Carrier.....	1-7
<b>Advanced Telecommunications.....</b>	<b>2-1</b>
Table 2.1 High-Speed Connections.....	2-3
Chart 2.1 Fixed High-Speed Connections.....	2-3
Chart 2.2 High-Speed Connections by Technology.....	2-3
Table 2.2 Residential High-Speed Connections.....	2-4
Chart 2.3 Residential Fixed High-Speed Connections.....	2-4
Chart 2.4 Residential High-Speed Connections by Technology.....	2-4
Table 2.3 Total High-Speed Connections by Speed Tier.....	2-5
Table 2.4 Residential High-Speed Connections by Speed Tier.....	2-6
Table 2.5 High-Speed Connections by Technology by State.....	2-7
Table 2.6 Percentage of High-Speed Connections by Download Speed by State.....	2-9
Table 2.7 Percentage of Residential End-User Premises with Access to High-Services by State ..	2-11
Table 2.8 Residential Fixed High-Speed Connections and Households by State.....	2-12
Chart 2.5 Percentage of U.S. Households with Computers, Internet Access, and High-Speed Access at Home.....	2-14
Table 2.9 Percent of U.S. Households with Internet Connections at Home: Rural vs. Urban.....	2-15
Chart 2.6 Percent of U.S. Households with Internet Connections at Home: Rural vs. Urban.....	2-15
<b>Consumer Expenditures.....</b>	<b>3-1</b>
Table 3.1 Household Expenditures for Telephone Service.....	3-3
Table 3.2 Average Monthly Household Telecommunications Expenditures by Type of Provider.....	3-4
Table 3.3 Personal Consumption Expenditures.....	3-5
Table 3.4 Personal Consumption Expenditures Per Household Per Month.....	3-6
Chart 3.1 Personal Consumption Expenditures for Telephone Service and Internet Access.....	3-7
Chart 3.2 Monthly Personal Consumption Expenditures for Telephone Service per Household....	3-7

<b>Earnings .....</b>	<b>4-1</b>
Table 4.1 Interstate Rate of Return Summary: Years 2000 through 2008 .....	4-3
<b>Employment and Labor Productivity .....</b>	<b>5-1</b>
Table 5.1 Average Number of Employees in the Telecommunications Industry .....	5-3
Chart 5.1 Average Number of Employees in the Telecommunications Industry .....	5-3
Table 5.2 Labor Productivity Index for the Wired and Wireless Telecommunications Industry .....	5-4
Chart 5.2 Wired and Wireless Telecommunications Carriers (NAICS 5171 and 5172) Labor Productivity Index .....	5-4
Table 5.3 Number of Telecommunications Service Providers by Size of Business .....	5-5
<b>International Telephone Service .....</b>	<b>6-1</b>
Table 6.1 International Service from the United States .....	6-3
Chart 6.1 Billed Revenues per Minute and per Call .....	6-3
Table 6.2 International Telephone Service Settlements .....	6-4
Table 6.3 International Message Telephone Service for 2008 .....	6-5
Chart 6.2 U.S. Billed Minutes by Country for 2008 .....	6-5
Table 6.4 U.S. Billed Revenues of Facilities-Based and Facilities-Resale Carriers in 2008.....	6-6
Table 6.5 Top Providers of Pure Resale International MTS in 2008 .....	6-7
<b>Lines .....</b>	<b>7-1</b>
Table 7.1 Total U.S. Wireline Telephone Lines .....	7-3
Table 7.2 Telephone Loops of Incumbent Local Exchange Carriers by State: 2007 & 2008 .....	7-4
Table 7.3 Telephone Loops of Incumbent Local Exchange Carriers by Holding Company: 2007 & 2008.....	7-6
Chart 7.1 Five Largest Holding Companies' Share of Loops for 2007 .....	7-6
Chart 7.2 Five Largest Holding Companies' Share of Loops for 2008 .....	7-7
Table 7.4 Additional Residential Lines for Households with Telephone Service .....	7-8
Table 7.5 Number of Payphones Owned by LECs and Independent Operators: 2008 & 2009 ....	7-9
Table 7.6 Number of Payphones Over Time .....	7-11
<b>Local Telephone Competition .....</b>	<b>8-1</b>
Table 8.1 End-User Switched Access Lines and VoIP Subscriptions .....	8-5
Chart 8.1 End-User Switched Access Lines and VoIP Subscriptions .....	8-5
Table 8.2 End-User Switched Access Lines and VoIP Subscriptions by Customer Type .....	8-6
Chart 8.2 Percent of Lines and VoIP Subscriptions that Serve Residential Customers .....	8-6

Table 8.3	End-User Switched Access Lines and VoIP Subscriptions Reported by Non-ILECs ...	8-7
Chart 8.3	Non-ILEC End-User Switched Access Lines and VoIP Subscriptions .....	8-7
Table 8.4	ILEC End-User (Retail) and Wholesale Switched Access Lines, VoIP Subscriptions, and UNEs.....	8-8
Chart 8.4	ILEC Total Lines and the Percent Provided to CLECs .....	8-8
Table 8.5	Total End-User Switched Access Lines and VoIP Subscriptions by State .....	8-9
Table 8.6	Residential End-User Switched Access Lines and VoIP Subscriptions by State .....	8-10
Table 8.7	Business End-User Switched Access Lines and VoIP Subscriptions by State .....	8-11
Table 8.8	Non-ILEC Share of Total End-User Switched Access Lines and VoIP Subscriptions by State.....	8-12
Table 8.9	Nationwide Local Service Revenues and New Competitors' Share.....	8-13
Table 8.10	Telephone Number Porting Activity Since Wireless Pooling Started .....	8-15
Table 8.11	Telephone Numbers Remaining in the Porting Database at the End of Each Quarter ...	8-16
Table 8.12	Numbers in the Porting Database by Quarter in Which They Were Most Recently Ported.....	8-17

**Long Distance Telephone Industry..... 9-1**

Table 9.1	Toll Revenues by Provider .....	9-5
Table 9.2	Intrastate, Interstate, and International Toll Revenues .....	9-7
Chart 9.1	Toll Revenues by Market Segment .....	9-7
Table 9.3	End-User Toll Revenues .....	9-8
Table 9.4	Number of Toll Service Providers .....	9-9
Table 9.5	Residential Household Market Shares: 1995-2008 .....	9-10
Chart 9.2	Residential Household Market Shares: 2008 .....	9-10
Table 9.6	Residential Household Market Shares by Region: 2008 .....	9-12
Chart 9.3	Residential Household Market Shares by Region: 2008 .....	9-12
Table 9.7	Regional Bell Operating Companies' Applications to Provide In-Region InterLATA Service .....	9-14

**Minutes ..... 10-1**

Table 10.1	Interstate Switched Access Minutes for Incumbent Local Exchange Carriers .....	10-3
Chart 10.1	Interstate Switched Access Minutes for Incumbent Local Exchange Carriers .....	10-3
Table 10.2	Telephone Calls and Billed Access Minutes of Large ILECs Reporting to the Commission .....	10-4

**Mobile Wireless Service ..... 11-1**

Table 11.1	Measures of Mobile Wireless Telephone Subscribers.....	11-3
Chart 11.1	Mobile Wireless Telephone Subscribers .....	11-4
Table 11.2	Mobile Wireless Telephone Subscribers .....	11-5
Table 11.3	Mobile Wireless Telephone Service: Industry Survey Results .....	11-6
Table 11.4	Distribution of Residential Wireless Calls and Minutes .....	11-7
Table 11.5	Duration of Residential Wireless Calls: 2008 .....	11-8
Table 11.6	Distribution of Residential Intrastate Wireless Minutes by Day and Time: 2006-2008 .	11-9
Table 11.7	Distribution of Residential Interstate Wireless Minutes by Day and Time: 2006-2008 .	11-10

<b>Price Indices for Telephone Services .....</b>	<b>12-1</b>
Table 12.1 Long-Term Changes for Various Price Indices (Annual Rates of Change) .....	12-3
Chart 12.1 CPI All Items and CPI Telephone Services .....	12-3
Table 12.2 Annual Changes in Major Price Indices .....	12-4
Chart 12.2 Percent Change in CPI All Items and CPI Telephone Services .....	12-4
Table 12.3 Annual Changes in Price Indices for Local and Long Distance Telephone Services ....	12-5
Chart 12.3 CPI Telephone Service Price Indices .....	12-5
<b>Price Levels .....</b>	<b>13-1</b>
Table 13.1 Average Residential Rates for Local Service in Urban Areas: 1995-2007 .....	13-3
Table 13.2 Average Local Rates for Businesses with a Single Line In Urban Areas: 1995-2007 ....	13-4
Table 13.3 Average Rate for a Residential Access Line .....	13-5
Table 13.4 Average Revenue Per Minute .....	13-6
Chart 13.1 Revenue Per Minute for Interstate Calls .....	13-7
<b>Residential Wireline Usage .....</b>	<b>14-1</b>
Table 14.1 Distribution of Residential Wireline Toll Calls and Minutes .....	14-3
Table 14.2 Average Residential Wireline Monthly Toll Minutes .....	14-3
Table 14.3 Distribution of Residential Wireline Long Distance Call Durations: 2008 .....	14-4
Table 14.4 Duration and Distance of Intrastate Toll Calls .....	14-5
Table 14.5 Duration and Distance of Interstate Toll Calls .....	14-5
Table 14.6 Distribution of Residential Wireline Long Distance Minutes by Day and Time.....	14-6
<b>Revenues .....</b>	<b>15-1</b>
Table 15.1 Telecommunications Industry Revenues .....	15-3
Chart 15.1 End-User Telecommunications Revenues .....	15-3
Table 15.2 Telecommunications Revenues Reported by Type of Service .....	15-4
Table 15.3 Number of Interstate Telecommunications Providers By Principal Type of Business ..	15-5
Table 15.4 Gross Revenues Reported by Type of Carrier .....	15-6
Table 15.5 Total Telecommunications Revenues by State .....	15-7
Table 15.6 Telecommunications Revenues by State: 2007 .....	15-8
Table 15.7 Telecommunications Revenues by Type of Service: 2007 .....	15-9
<b>Subscribership .....</b>	<b>16-1</b>
Table 16.1 Household Telephone Subscribership in the United States .....	16-3
Table 16.2 Historical Telephone Penetration Estimates .....	16-4
Table 16.3 Telephone Penetration by State: Households with Telephone Service .....	16-5
Table 16.4 Telephone Penetration by State: Houseing Units with Telephone Service .....	16-6
Table 16.5 Telephone Penetration by Selected Characteristics .....	16-7

**Technology and Infrastructure..... 17-1**

Table 17.1 Central Office Switches and Access Lines by Technology ..... 17-5  
Table 17.2 Switches by Metropolitan Statistical Area (MSA) and Non-MSA and Switches by  
Line Counts ..... 17-6  
Table 17.3 Local Transmission Technology (Bell Operating Companies) and  
Working Telecommunications Channels ..... 17-7  
Table 17.4 Central Offices Converted to Equal Access (As of February 1, 2010) ..... 17-8  
Table 17.5 Broadband Capabilities of NECA's 2007 Rural Incumbent LEC Survey Respondents ... 17-9  
Chart 17.1 Telecommunications Patents ..... 17-10  
Table 17.6 Capital Expenditures for Structures and Equipment ..... 17-11  
Chart 17.2 Capital Expenditures for Structures and Equipment by Carriers ..... 17-12

**Telephone Numbers ..... 18-1**

Table 18.1 Geographic Telephone Number Utilization over Time..... 18-3  
Table 18.2 Number Utilization by Carrier Type ..... 18-3  
Table 18.3 Telephone Number Utilization by State ..... 18-4  
Table 18.4 Area Codes by State ..... 18-5  
Table 18.5 Area Code Assignments ..... 18-6  
Table 18.6 Telephone Numbers Assigned for Toll-Free Service (800, 888, 877, 866) ..... 18-8  
Chart 18.1 Working Toll-Free Numbers ..... 18-8  
Table 18.7 Telephone Numbers Assigned for Toll-Free Service 800 Toll-Free Service ..... 18-9  
Table 18.8 Telephone Numbers Assigned for 888 Toll-Free Service ..... 18-10  
Table 18.9 Telephone Numbers Assigned for 877 Toll-Free Service ..... 18-11  
Table 18.10 Telephone Numbers Assigned for 866 Toll-Free Service ..... 18-12  
Table 18.11 Number of Digits Necessary to Dial Local and Toll Calls in the U.S. .... 18-13

**Universal Service ..... 19-1**

Table 19.1 Universal Service Support Mechanisms: 2007 & 2008 ..... 19-5  
Chart 19.1 Distribution of Universal Service Payments: 2008 ..... 19-5  
Table 19.2 Universal Service Support Received by Service Provider: 2008 ..... 19-6  
Chart 19.2 Universal Service Support Received by Service Provider: 2008 ..... 19-6  
Table 19.3 High-Cost Support Fund Payment History ..... 19-7  
Chart 19.3 Total High-Cost Support Fund Payments ..... 19-7  
Table 19.4 High-Cost Support Fund Payments by State: 2007 & 2008..... 19-8  
Table 19.5 High-Cost Support Received by Incumbent LECs and CETCs ..... 19-10  
Chart 19.4 Percent of High-Cost Support Received by CETCs ..... 19-10  
Table 19.6 High-Cost Support by Type of Carriers: 2008 ..... 19-11  
Table 19.7 Lifeline Monthly Support by State or Jurisdiction ..... 19-12  
Table 19.8 Lifeline Subscribers and Link-Up Beneficiaries ..... 19-13  
Table 19.9 Lifeline Subscribers and Link-Up Beneficiaries by State or Jurisdiction: 2007 & 2008 . 19-14  
Table 19.10 Low-Income Support Payments ..... 19-16  
Chart 19.5 Lifeline and Link-Up Support Payments ..... 19-16  
Table 19.11 Low-Income Support Payments by State or Jurisdiction: 2007 & 2008 ..... 19-17  
Table 19.12 Low-Income Support Received by ILECs and CETCs ..... 19-19  
Chart 19.6 Percent of Low-Income Support Received by CETCs ..... 19-19

Table 19.13	Schools and Libraries Funding by Type of Service .....	19-20
Chart 19.7	Total Schools and Libraries Funds Committed and Disbursed .....	19-20
Table 19.14	Schools and Libraries Funding by State and Type of Service .....	19-21
Table 19.15	Rural Health Care Fund Disbursements by Service Speed .....	19-22
Chart 19.8	Rural Health Care Fund Disbursements by Service Speed .....	19-22
Table 19.16	Rural Health Care Fund Disbursements by Service Speed and by State .....	19-23
Table 19.17	Universal Service Fund Contribution Factors .....	19-24
Table 19.18	Share of Universal Service Contributions by Principal Type of Contributor Using Traditional Carrier Categories .....	19-25
Chart 19.9	Share of Universal Service Contributions by Principal Type of Contributor .....	19-26
 <b>Appendix A - List of Publications by the Industry Analysis and Technology Division .....</b>		<b>20-A</b>
 <b>Appendix B - Sources of Telecommunications Information .....</b>		<b>21-A</b>
 <b>Appendix C - Contacting the Report Authors .....</b>		<b>22-A</b>

## Introduction

*Trends in Telephone Service* is published by the Industry Analysis and Technology Division of the Federal Communication Commission's Wireline Competition Bureau.<sup>1</sup> This report is designed to provide answers to some of the most frequently asked questions about the telephone industry -- questions asked by consumers, members of Congress, other government agencies, telecommunications carriers, and members of the business and academic communities. To this end, the report contains summary information about the size, growth, and development of the telephone industry, including data on market shares, minutes of calling, number of lines, and telephone subscribership. The report also provides information about access charges, advanced telecommunications, consumer expenditures for service, infrastructure, international telephone traffic, local telephone competition, telephone rates and price changes, toll service providers, and universal service support.

*Trends in Telephone Service* summarizes a variety of information contained in other reports that are published periodically by the Industry Analysis and Technology Division.<sup>2</sup> In most cases, these other reports provide more detailed information than that provided here. These reports can be accessed from the Wireline Competition Bureau Statistical Reports Internet site, at [www.fcc.gov/wcb/stats](http://www.fcc.gov/wcb/stats). In addition, to facilitate further information gathering by consumers and others, we have listed additional sources of information in Appendix B, and we have provided information on contacting the authors of this report in Appendix C.

## 1 Access Charges

Long distance companies rely on the loops, switches, and transport facilities of local telephone companies for access to their customers. As a result, local telephone companies recover a portion of their costs from long distance companies accessing their networks. Both the manner in which these access charges have been assessed and the proportion of the costs they have recovered have varied considerably over time.

In the early 1980s, AT&T provided about three-quarters of the nation's local telephone service and almost all interstate long distance service. Because revenue sharing was largely an internal process for AT&T, it was able to charge prices above true economic cost for long distance calls and share the revenues with local telephone companies. These transfers, while reducing the pressures on the local companies to raise monthly rates, contributed to inefficiently high long distance rates. The high rates were responsible for suppressing demand for long distance calls and inducing large corporations to bypass the public switched network. Moreover, while such revenue sharing arrangements were sustainable in an industry where one firm monopolized both long distance and local service, they were not compatible with a competitive

---

<sup>1</sup> *Trends in Telephone Service* was last published in August 2008.

<sup>2</sup> See Appendix A for a list of these publications.

long distance industry.

In mid-1984 the FCC, in cooperation with a Federal-State Joint Board composed of both federal and state regulators, introduced sweeping changes in the way that local telephone companies charged for their services. The historic method of sharing revenues was replaced with a new system of access charges that provided a uniform method for local telephone companies to charge long distance carriers for the origination and termination of interstate traffic on their local networks. In addition, monthly subscriber line charges (SLCs) were introduced to recover a portion of the fixed costs of the local telephone companies' loops directly from end users on a per-line basis. Since local telephone companies were required to reduce their charges to long distance carriers -- dollar for dollar -- as SLCs were introduced, the pricing changes reduced the implicit subsidy from long distance use to local service. The rebalancing of prices between local service and interstate long distance calls during the 1980s had a fundamental impact on the telephone industry as the price of long distance service fell and the volume of long distance calling surged.

In mid-1997, as part of its implementation of the 1996 Telecommunications Act, the FCC introduced further interstate access charge reform. Prior to the 1997 reform, local carriers continued to recover part of their fixed costs in per-minute charges (from long distance carriers) and part from end users (in SLCs.) Presubscribed interexchange carrier charges (PICCs) were created in order to allow local carriers to recover the remaining portion of their fixed loop costs from long distance carriers on a per-line, instead of a per-minute, basis.

As part of access charge reform in May of 2000, the FCC started to eliminate PICCs and consolidate them with SLCs. All price-cap local exchange carriers implemented lower access charges paid by long distance carriers. In October of 2001, the FCC modified its interstate access charge rules for rate-of-return incumbent local exchange carriers. These changes for the rate-of-return carriers were designed to align the interstate access rate structure more closely with the manner in which costs are incurred by driving per-minute access charges towards lower, more cost-based levels.

Average monthly SLCs and PICCs are shown in Table 1.1, and average per-minute rates charged to long distance carriers are shown in Table 1.2. Both tables report historical averages for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Current per-line charges and per-minute charges are reported for each of the carriers in Tables 1.3 and 1.4, respectively.

**Table 1.1**  
**Interstate Per-Line Access Charges <sup>1</sup>**

Rates in Effect		Charged to End Users <sup>2</sup> (Subscriber Line Charges)			Charged to Long Distance Carriers <sup>3</sup> (Presubscribed Interexchange Carrier Charges)			
From	To	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex	Residential and Single-Line Business	Non-Primary Residential	Multiline Business	Centrex
05/26/84	05/31/85	\$0.00		\$4.99				
06/01/85	09/30/85	1.00		4.99				
10/01/85	05/31/86	1.00		4.97				
06/01/86	12/31/86	2.00		4.97				
01/01/87	06/30/87	2.00		5.12				
07/01/87	12/31/87	2.60		5.12				
01/01/88	11/30/88	2.60		5.01				
12/01/88	03/31/89	3.20		5.01				
04/01/89	12/31/89	3.50		4.94				
01/01/90	06/30/90	3.48		4.84				
07/01/90	12/31/90	3.48		4.83				
01/01/91	06/30/91	3.48		4.77				
07/01/91	11/27/91	3.49		4.74				
11/28/91	06/30/92	3.49		4.76				
07/01/92	06/30/93	3.49		4.68				
07/01/93	06/30/94	3.50		5.37				
07/01/94	06/30/95	3.50		5.45				
07/01/95	06/30/96	3.50		5.50				
07/01/96	06/30/97	3.50		5.53				
07/01/97	12/31/97	3.50		5.68				
01/01/98	06/30/98	3.50	\$4.98	6.92	\$0.49	\$1.50	\$2.52	\$0.35
07/01/98	12/31/98	3.50	4.99	7.11	0.49	1.38	2.38	0.38
01/01/99	06/30/99	3.50	5.88	7.05	0.49	1.38	2.22	0.32
07/01/99	12/31/99	3.50	5.84	6.94	0.95	1.77	2.78	0.42
01/01/00	06/30/00	3.50	5.81	6.94	0.92	1.70	2.44	0.35
08/11/00	06/30/01 <sup>4</sup>	4.28	5.99	6.88	0.00	0.00	2.30	0.37
07/01/01	12/31/01	4.78	5.93	6.66	0.00	0.00	1.35	0.22
01/01/02	06/30/02	4.92	5.93	6.79	0.00	0.00	1.35	0.22
07/01/02	06/30/03	5.62	5.88	6.45	0.00	0.00	0.48	0.08
07/01/03	06/30/04	5.96	5.94	6.37	0.00	0.00	0.20	0.04
07/01/04	06/30/05	5.92	5.85	6.24	0.00	0.00	0.19	0.05
07/01/05	06/30/06	5.92	5.83	6.26	0.00	0.00	0.21	0.04
07/01/06	06/30/07	5.91	5.81	6.27	0.00	0.00	0.23	0.04
07/01/07	06/30/08	5.93	5.81	6.30	0.00	0.00	0.23	0.05
07/01/08	06/30/09	5.90	5.78	6.27	0.00	0.00	0.22	0.05
07/01/09	06/30/10	5.88	5.75	6.21	0.00	0.00	0.18	0.04

<sup>1</sup> This table shows average rates (weighted by access lines) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool.

<sup>2</sup> Prior to 1/01/1998, carriers did not charge separate subscriber line charge (SLC) rates for primary and non-primary residential lines. Therefore, the residential and single-line business average SLCs reported prior to 1/01/1998 include all residential SLC charges. The average residential and single-line business SLC rate as of 1/01/98 excludes non-primary residential SLCs. Non-primary SLCs are now reported separately, except for the LECs in the NECA pool, which continue to charge a single residential SLC. Under price-cap regulation, as of 7/1/2003, the caps on SLCs for primary residential and single-line business, non-primary residential, and multiline business and Centrex lines equal \$6.50, \$7.00, and \$9.20, respectively. For NECA pool companies, the residential SLC cap is \$6.50, while the multiline business and Centrex SLC cap equals \$9.20.

<sup>3</sup> On 1/01/98, price-cap carriers began to charge presubscribed interexchange carrier charges (PICCs). The reported PICCs are averages per line including both price-cap and NECA pool lines. While carriers did not charge different rates for Centrex and multiline business SLCs, they did charge different PICC rates for these lines. Therefore, the average multiline business and Centrex PICC rates are reported separately. However, multiline business line counts, used to compute average PICC rates, include Centrex lines for LECs in the NECA pool, which do not charge PICCs or distinguish in access filings between the two line types. On 7/01/2000, residential and single-line business PICCs was eliminated. Since then the PICCs cap for multiline business lines equal \$4.31 for price cap carriers. Centrex groups of 9 or fewer lines are capped at the multiline business PICC rate of \$4.31 per group. Centrex groups with more than 9 lines are capped at \$0.48 per line (1/9th the multiline business rate).

<sup>4</sup> Although the charges took effect on 7/1/2000, some companies made adjustments to the tariffs which did not take effect until 8/11/2000.

Source: Access tariff filings.

**Table 1.2**  
**Interstate Per-Minute Access Charges**  
**(National Average in Cents per Minute) <sup>1</sup>**

Rates in Effect		Interstate Charges for Switched Access Service				
From	To	Carrier Common Line per Originating Access Minute <sup>1</sup>	Carrier Common Line per Terminating Access Minute <sup>1</sup>	Traffic Sensitive per Switched Minute	Non-Traffic Sensitive per Switched Minute <sup>2</sup>	Total Charge per Conversation Minute <sup>3</sup>
05/26/84	01/14/85	5.24 ¢	5.24 ¢	3.10 ¢		17.26 ¢
01/15/85	05/31/85	5.43	5.43	3.10		17.66
06/01/85	09/30/85	4.71	4.71	3.10		16.17
10/01/85	05/31/86	4.33	4.33	3.10		15.38
06/01/86	12/31/86	3.04	4.33	3.10		14.00
01/01/87	06/30/87	1.55	4.33	3.10		12.41
07/01/87	12/31/87	0.69	4.33	3.10		11.49
01/01/88	11/30/88	0.00	4.14	3.10		10.56
12/01/88	02/14/89	0.00	3.39	3.00		9.60
02/15/89	03/31/89	0.00	3.25	3.00		9.46
04/01/89	12/31/89	1.00	1.83	3.00		9.11
01/01/90	06/30/90	1.00	1.53	2.50		7.78
07/01/90	12/31/90	1.00	1.23	2.50		7.48
01/01/91	06/30/91	1.00	1.14	2.40		7.18
07/01/91	06/30/92	0.88	1.06	2.40		6.97
07/01/92	06/30/93	0.79	0.95	2.40		6.76
07/01/93	06/30/94	0.88	1.16	2.20		6.66
07/01/94	06/30/95	0.84	1.08	2.10	0.28 ¢	6.89
07/01/95	06/30/96	0.74	0.89	1.96	0.21	6.16
07/01/96	06/30/97	0.72	0.89	1.95	0.17	6.04
07/01/97	12/31/97	0.64	0.84	1.63	0.14	5.18
01/01/98	06/30/98	0.68	0.23	1.29	0.21	4.04
07/01/98	12/31/98	0.91	0.20	0.99	0.30	3.82
01/01/99	06/30/99	0.82	0.16	0.98	0.32	3.71
07/01/99	12/31/99	0.37	0.10	0.86	0.28	2.82
01/01/00	06/30/00	0.32	0.10	0.86	0.31	2.85
08/11/00	06/31/00 <sup>4</sup>	0.23	0.07	0.52	0.26	1.91
07/01/01	12/31/01	0.15	0.07	0.48	0.24	1.71
01/01/02	06/30/02	0.15	0.07	0.47	0.24	1.69
07/01/02	06/30/03	0.02	0.01	0.48	0.22	1.46
07/01/03	06/30/04	0.00	0.00	0.48	0.22	1.44
07/01/04	06/30/05	0.00	0.00	0.50	0.25	1.53
07/01/05	06/30/06	0.00	0.00	0.52	0.25	1.59
07/01/06	06/30/07	0.01	0.00	0.54	0.25	1.63
07/01/07	06/30/08	0.01	0.00	0.56	0.26	1.71
07/01/08	06/30/09	0.01	0.00	0.63	0.24	1.80
07/01/09	06/30/10	0.00	0.00	0.64	0.26	1.85

<sup>1</sup> This table shows average rates (weighted by minutes of use) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. The average rates reported here do not include revenues from subscriber line charges (SLCs) or primary interexchange carrier charges (PICCs), both of which are reported in Table 1.1. Effective 07/01/03, the carrier common line (CCL) rates for NECA carriers were eliminated.

<sup>2</sup> Non-traffic-sensitive charges include charges assessed on a per-month, per-unit basis. Prior to 07/01/94, these charges were included in the average traffic-sensitive rates.

<sup>3</sup> The total charge per conversation minute consists of charges on the originating end of the call, which are adjusted for dialing and call setup time, plus charges on the terminating end. Originating charges per conversation minute equal the carrier common line charge per originating access minute plus the traffic-sensitive charge per switched minute, both multiplied by 1.07 to account for dialing and call setup time, plus the non-traffic-sensitive charge per switched minute. Terminating charges per conversation minute equal carrier common line charges per terminating access minute plus both traffic-sensitive and non-traffic-sensitive charges per switched minute.

<sup>4</sup> Although the charges took effect on 7/1/2000, some companies made adjustments to the tariffs which did not take effect until 8/11/2000.

Source: Access tariff filings.

**Table 1.3**  
**Interstate Per-Line Access Charges by Carrier**  
(In Dollars per Month per Line) <sup>1</sup>

Company	Rates Effective from 07/01/09 to 06/30/10					2008 Average Monthly Access Lines <sup>3</sup> (Thousands)		
	Subscriber Line Charges			PICC <sup>2</sup>				
	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex	Multiline Business	Centrex	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex
ACS	\$6.50	NA	\$9.20	\$0.00	\$0.00	49	0	24
América Móvil	6.50	6.50	9.20	0.00	0.00	687	1	172
AT&T	5.47	5.26	5.41	0.00	0.00	31,552	3,570	17,938
CenturyTel	5.67	5.47	7.17	0.05	0.06	4,934	348	1,694
Cincinnati Bell	5.28	5.28	5.28	0.00	0.00	466	31	259
Consolidated	6.50	6.50	9.20	0.00	0.00	136	6	55
FairPoint	6.23	6.23	6.23	0.00	0.00	835	54	320
Frontier	6.17	6.53	9.20	3.87	0.74	1,288	58	436
Hawaiin Telecom	6.50	7.00	8.15	0.00	0.00	365	35	90
Iowa Telecom	5.89	5.89	8.09	0.00	0.00	155	5	43
Pacific Telecom Inc.	6.50	7.00	9.20	0.71	0.11	11	0	4
Qwest	5.99	6.20	6.38	0.00	0.00	6,619	636	2,731
Verizon	6.27	6.29	6.76	0.45	0.06	20,585	2,388	10,959
Windstream	6.29	6.46	7.50	0.12	1.32	1,523	224	534
Price Caps	5.83	5.75	6.11	0.19	0.04	69,205	7,358	35,260
NECA	6.50	NA	9.20	0.00	NA	4,788	NA	1,213
Price Caps and NECA	\$5.88	\$5.75	\$6.21	\$0.18	\$0.04	73,993	7,358	36,472

NA - Not Applicable.

<sup>1</sup> This table shows average rates (weighted by access lines) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Rates are composites of all regions and subsidiaries of each local exchange carrier. For example, non-primary residential SLCs can be less than primary residential SLCs due to weighting by access lines. Note that at the disaggregated level, non-primary rates are always greater than or equal to primary rates. The primary line rate is weighted by the number of primary residential lines and the non-primary residential rate is similarly weighted by the number of non-primary access lines. Because the weight on primary lines versus non-primary lines is not constant, the primary rate is not necessarily lower than the non-primary rate at the holding company level. No information is available for those carriers that are not in the NECA pool, but are subject to rate-of-return regulation.

<sup>2</sup> PICC is an abbreviation for Presubscribed Interexchange Carrier Charge.

<sup>3</sup> Access line counts measure lines that companies report as qualified to receive subscriber line charges (SLCs). ISDN-BRI lines, which are charged non-primary SLC and PICC rates, are included in the non-primary residential line counts. ISDN-PRI lines, which are charged rates equal to five times the multiline business SLC and PICC rates, are multiplied by five and added to multiline business counts.

Source: Access tariff filings.

**Table 1.3**  
**Interstate Per-Line Access Charges by Carrier -- Continued**  
(In Dollars per Month per Line) <sup>1</sup>

Company	Rates Effective from 07/01/08 to 06/30/09					2007 Average Monthly Access Lines <sup>3</sup> (Thousands)		
	Subscriber Line Charges			PICC <sup>2</sup>				
	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex	Multiline Business	Centrex	Residential and Single-Line Business	Non-Primary Residential	Multiline Business and Centrex
América Móvil	\$6.50	\$6.50	\$9.20	\$0.00	\$0.00	777	2	193
AT&T	5.48	5.30	5.45	0.00	0.00	34,451	4,099	18,699
CenturyTel <sup>4</sup>	6.37	6.58	7.55	0.82	1.19	407	17	116
Cincinnati Bell	5.27	5.27	5.27	0.00	0.00	522	36	260
Consolidated	6.50	6.50	9.20	0.00	0.00	148	8	57
Embarq	5.66	5.55	6.95	0.00	0.00	4,349	375	1,502
FairPoint	6.25	6.25	6.25	0.00	0.00	930	72	333
Frontier	6.47	6.95	9.20	4.27	0.79	1,171	57	365
Hawaiian Telecom	6.50	7.00	8.15	0.00	0.00	405	39	94
Iowa Telecom	6.16	6.16	8.41	0.00	0.00	168	6	46
Pacific Telecom Inc.	6.50	7.00	9.20	1.33	0.20	15	1	3
Qwest	6.02	6.26	6.53	0.00	0.00	7,322	755	2,863
Verizon	6.29	6.31	6.80	0.55	0.07	22,306	2,804	11,703
Windstream	6.36	6.48	7.69	0.50	0.73	1,566	93	583
Price Caps	5.85	5.78	6.15	0.23	0.05	74,538	8,364	36,817
NECA	6.50	NA	9.14	0.00	NA	6,388	NA	1,621
Price Caps and NECA	\$5.90	\$5.78	\$6.27	\$0.22	\$0.05	80,926	8,364	38,437

NA - Not Applicable.

<sup>1</sup> This table shows average rates (weighted by access lines) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Rates are composites of all regions and subsidiaries of each local exchange carrier. For example, non-primary residential SLCs can be less than primary residential SLCs due to weighting by access lines. Note that at the disaggregated level, non-primary rates are always greater than or equal to primary rates. The primary line rate is weighted by the number of primary residential lines and the non-primary residential rate is similarly weighted by the number of non-primary access lines. Because the weight on primary lines versus non-primary lines is not constant, the primary rate is not necessarily lower than the non-primary rate at the holding company level. No information is available for those carriers that are not in the NECA pool, but are subject to rate-of-return regulation.

<sup>2</sup> PICC is an abbreviation for Presubscribed Interexchange Carrier Charge.

<sup>3</sup> Access line counts measure lines that companies report as qualified to receive subscriber line charges (SLCs). ISDN-BRI lines, which are charged non-primary SLC and PICC rates, are included in the non-primary residential line counts. ISDN-PRI lines, which are charged rates equal to five times the multiline business SLC and PICC rates, are multiplied by five and added to multiline business counts.

<sup>4</sup> Data reflect only those company study areas subject to price-cap regulation.

Source: Access tariff filings.

**Table 1.4**  
**Interstate Per-Minute Access Charges by Carrier**  
(In Cents per Minute)<sup>1</sup>

Company	Rates Effective from July 1, 2009 to June 30, 2010					Year 2008 Local Switching Minutes of Use (Millions)
	Carrier Common Line per Originating Access Minute	Carrier Common Line per Terminating Access Minute	Switched Traffic Sensitive per Access Minute	Switched Non-Traffic Sensitive per Access Minute <sup>2</sup>	Total Charge per Conversation Minute <sup>3</sup>	
ACS	0.00 ¢	0.00 ¢	0.56 ¢	0.12 ¢	1.39 ¢	236
América Móvil	0.00	0.00	0.90	0.22	2.29	2,029
AT&T	0.00	0.00	0.49	0.24	1.50	135,647
CenturyTel	0.01	0.00	0.85	0.21	2.18	20,102
Cincinnati Bell	0.00	0.00	0.66	0.55	2.47	2,170
Consolidated	0.00	0.00	1.33	0.35	3.46	456
FairPoint	0.00	0.00	0.51	0.28	1.62	3,421
Frontier	0.19	0.00	0.50	0.58	2.40	4,567
Hawaiian Telecom	0.00	0.00	0.63	0.38	2.06	996
Iowa Telecom	0.00	0.00	1.48	0.78	4.62	445
Pacific Telecom Inc.	0.00	0.00	0.49	0.17	1.35	48
Qwest	0.00	0.00	0.79	0.20	2.03	30,733
Verizon	0.00	0.00	0.55	0.26	1.64	86,668
Windstream	0.00	0.00	0.62	0.25	1.78	6,084
Price Caps	0.00	0.00	0.57	0.25	1.69	293,601
NECA	0.00	0.00	2.30	0.47	5.71	12,355
All Price Caps and NECA	0.00	0.00	0.64	0.26	1.85	305,956

<sup>1</sup> This table shows average rates (weighted by minutes of use) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Rates are composites of all regions and subsidiaries of each local exchange carrier. No information is available for those carriers that are not in the NECA pool, but are subject to rate-of-return regulation. The average rates reported here do not include the average revenue per minute from subscriber line charges (SLCs) or primary interexchange carrier charges (PICCs), both of which are reported in Table 1.1.

<sup>2</sup> Non-traffic sensitive charges include charges assessed on a per-month, per-unit basis.

<sup>3</sup> The total charge per conversation minute consists of charges on the originating end of the call, which are adjusted for dialing and call setup time, plus charges on the terminating end. Originating charges per conversation minute equal the carrier common line charge per originating access minute plus the traffic-sensitive charge per switched minute, both multiplied by 1.07 to account for dialing and call setup time, plus the non-traffic-sensitive charge per switched minute. Terminating charges per conversation minute equal carrier common line charges per terminating access minute plus both traffic-sensitive and non-traffic-sensitive charges per switched minute.

Source: Access tariff filings.

**Table 1.4**  
**Interstate Per-Minute Access Charges by Carrier -- Continued**  
(In Cents per Minute) <sup>1</sup>

Company	Rates Effective from July 1, 2008 to June 30, 2009					Year 2007 Local Switching Minutes of Use (Millions)
	Carrier Common Line per Originating Access Minute	Carrier Common Line per Terminating Access Minute	Switched Traffic Sensitive per Access Minute	Switched Non-Traffic Sensitive per Access Minute <sup>2</sup>	Total Charge per Conversation Minute <sup>3</sup>	
América Móvil	0.00 ¢	0.00 ¢	0.97 ¢	0.28 ¢	2.56 ¢	2,210
AT&T	0.00	0.00	0.49	0.24	1.50	147,141
CenturyTel <sup>4</sup>	0.10	0.00	0.49	0.28	1.69	1,638
Cincinnati Bell	0.00	0.00	0.63	0.46	2.24	2,553
Consolidated	0.00	0.00	1.29	0.40	3.47	470
Embarq	0.00	0.00	0.89	0.18	2.20	18,574
FairPoint	0.00	0.00	0.48	0.27	1.53	3,989
Frontier	0.28	0.01	0.49	0.53	2.39	4,212
Hawaiian Telecom	0.00	0.00	0.60	0.48	2.20	1,221
Iowa Telecom	0.00	0.00	1.63	0.82	5.00	485
Pacific Telecom Inc.	0.00	0.00	0.54	0.14	1.40	51
Qwest	0.00	0.00	0.77	0.18	1.95	33,755
Verizon	0.02	0.00	0.52	0.23	1.57	100,522
Windstream	0.00	0.00	0.56	0.25	1.66	6,101
Price Caps	0.01	0.00	0.56	0.23	1.64	322,923
NECA	0.00	0.00	2.06	0.39	5.04	15,125
All Price Caps and NECA	0.01	0.00	0.63	0.24	1.80	338,049

<sup>1</sup> This table shows average rates (weighted by minutes of use) for all local exchange carriers (LECs) that file access tariffs subject to price-cap regulation and all LECs in the National Exchange Carrier Association (NECA) pool. Rates are composites of all regions and subsidiaries of each local exchange carrier. No information is available for those carriers that are not in the NECA pool, but are subject to rate-of-return regulation. The average rates reported here do not include the average revenue per minute from subscriber line charges (SLCs) or primary interexchange carrier charges (PICCs), both of which are reported in Table 1.1.

<sup>2</sup> Non-traffic sensitive charges include charges assessed on a per-month, per-unit basis.

<sup>3</sup> The total charge per conversation minute consists of charges on the originating end of the call, which are adjusted for dialing and call setup time, plus charges on the terminating end. Originating charges per conversation minute equal the carrier common line charge per originating access minute plus the traffic-sensitive charge per switched minute, both multiplied by 1.07 to account for dialing and call setup time, plus the non-traffic-sensitive charge per switched minute. Terminating charges per conversation minute equal carrier common line charges per terminating access minute plus both traffic-sensitive and non-traffic-sensitive charges per switched minute.

<sup>4</sup> Data reflect only those company study areas subject to price-cap regulation.

Source: Access tariff filings.

## 2 Advanced Telecommunications

Congress directed the Commission and the states, in section 706 of the Telecommunications Act of 1996, to encourage deployment of advanced telecommunications capability in the United States on a reasonable and timely basis. To assist in its evaluation of such deployment, in 2000 the Commission instituted a formal data collection program (FCC Form 477), which gathers standardized information about subscribership to high-speed Internet access services from telephone companies, cable system operators, terrestrial wireless service providers, satellite service providers, and any other facilities-based providers of advanced telecommunications capability. For reporting purposes, “high-speed” Internet access connections are faster than 200 kilobits per second (kbps) in at least one direction.

From June 2005 onward, all facilities-based providers of high-speed connections have been required to report to the Commission basic information about their service offerings and types of customers. (Data for semiannual reporting dates from December 1999 through December 2004 were required from facilities-based providers with at least 250 high-speed connections in service in a particular state. Small providers, many of whom serve rural areas with relatively small populations, were therefore underrepresented in the earlier data. However, as of June 2005, filers with fewer than 250 connections in a state, including entities that previously filed on a voluntary basis, represented only about 0.2% of total reported high-speed connections.)

Also starting with the June 2005 data, incumbent local exchange carriers (LECs) and cable system operators must report the extent to which their digital subscriber line (DSL) or cable modem high-speed connections are available to the households to whom they offer local telephone service or cable TV service – that is, available whether or not the household actually subscribes to a high-speed Internet access service.

From December 2008 onward, all facilities-based providers report connections in accordance with 72 upload and download transmission speed categories.<sup>1</sup>

Table 2.1 shows high-speed connections in service at semiannual reporting dates between June 2005 and December 2008 for the following types of technology: asymmetric digital subscriber line (aDSL), symmetric digital subscriber line (sDSL), other wireline, cable modem, fiber to the premises, satellite, fixed wireless, power line and other, and mobile wireless. Chart 2.1 shows the growth of high-speed connections from June 2005 through December 2008. (The drop in the reported number of mobile wireless connections between June 2008 and December 2008 is explained in the notes that follow Table 2.8.) Chart 2.2 shows the proportion of high-speed connections by technology as of December 31, 2008.

Table 2.2 shows residential high-speed connections by the above technologies. Chart 2.3 shows the growth of residential high-speed connections from June 2005 through December 2008,

---

<sup>1</sup> From December 2008 onward, facilities-based providers of fixed-location high-speed Internet access connections also report the number of connections in service at the census tract level of detail as well as at the state level. For additional information, see Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

and Chart 2.4 shows the proportion of residential high-speed connections by technology as of December 31, 2008.

Table 2.3 shows high-speed connections by speed tier and Table 2.4 shows residential high-speed connections by speed tier as of December 31, 2008.

Table 2.5 shows high-speed connections, by state and by technology, as of December 31, 2008. Table 2.6 shows the percentage of high-speed connections above 200 kbps in both directions, by state and by download speed, as of December 31, 2008.

Table 2.7 provides nationwide and state-specific estimates of the extent to which DSL high-speed connections provided by incumbent LECs, and cable modem high-speed service provided by cable system operators, are available to the households to whom these companies offer local telephone service or cable TV service.

Table 2.8 shows residential fixed-location high-speed connections and households by state as of December 31, 2008, and the ratio of the two.

The U.S. Department of Commerce periodically has asked the U.S. Census Bureau to include questions on whether households have telephones, computers, and Internet access as part of the *Current Population Survey*. Chart 2.5 shows the percent of U.S. households with computers, Internet access, and high-speed access as reported in those surveys.

Table 2.9 and Chart 2.6 show the percent of U.S. households with Internet access for rural and urban areas, and the proportion that have Internet access over a high-speed connection.

Table 17.5, appearing in section 17 of this report, presents broadband capabilities of small, mostly rural telephone companies based upon a periodic survey conducted by the National Exchange Carrier Association (NECA).

**Table 2.1**  
**High-Speed Connections 2005-2008**  
 (Connections over 200 kbps in at least one direction, in thousands)

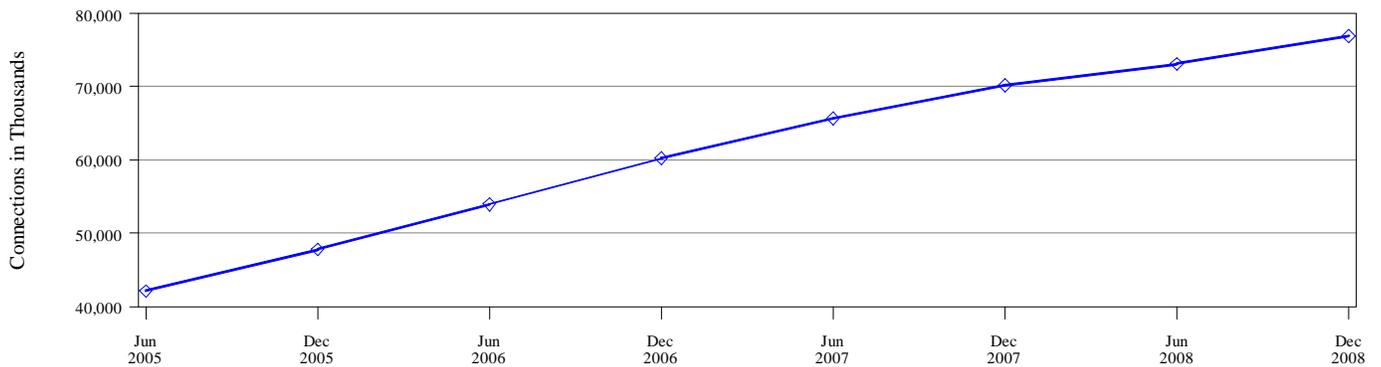
Technology	2005		2006		2007		2008	
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Total	42,518	50,930	64,992	82,525	100,986	121,222	132,814	<b>102,043</b>
Total Fixed	42,138	47,803	53,975	60,238	65,681	70,206	73,123	<b>76,926</b>
aDSL	16,316	19,515	22,584	25,413	27,793	29,449	29,964	<b>30,190</b>
sDSL	412	369	337	345	320	293	275	<b>245</b>
Other Wireline	487	373	472	545	622	605	665	<b>711</b>
Cable Modem	24,017	26,558	29,173	31,982	34,404	36,507	38,190	<b>41,468</b>
FTTP <sup>1</sup>	316	298	547	894	1,281	1,849	2,346	<b>2,881</b>
Satellite	377	427	495	572	669	791	869	<b>938</b>
Fixed Wireless	209	257	361	483	587	707	808	<b>488</b>
Power Line and Other	5	5	5	5	5	5	5	<b>5</b>
Mobile Wireless <sup>2</sup>	380	3,128	11,017	22,288	35,305	51,016	59,691	<b>25,117</b>

<sup>1</sup> Fiber to the premises.

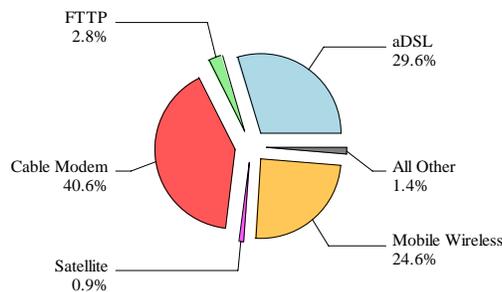
<sup>2</sup> Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See additional notes following Table 2.8.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

**Chart 2.1**  
**Fixed High-Speed Connections 2005-2008**



**Chart 2.2**  
**High-Speed Connections by Technology as of December 31, 2008**



**Table 2.2**  
**Residential High-Speed Connections 2005-2008**  
 (Connections over 200 kbps in at least one direction, in thousands)

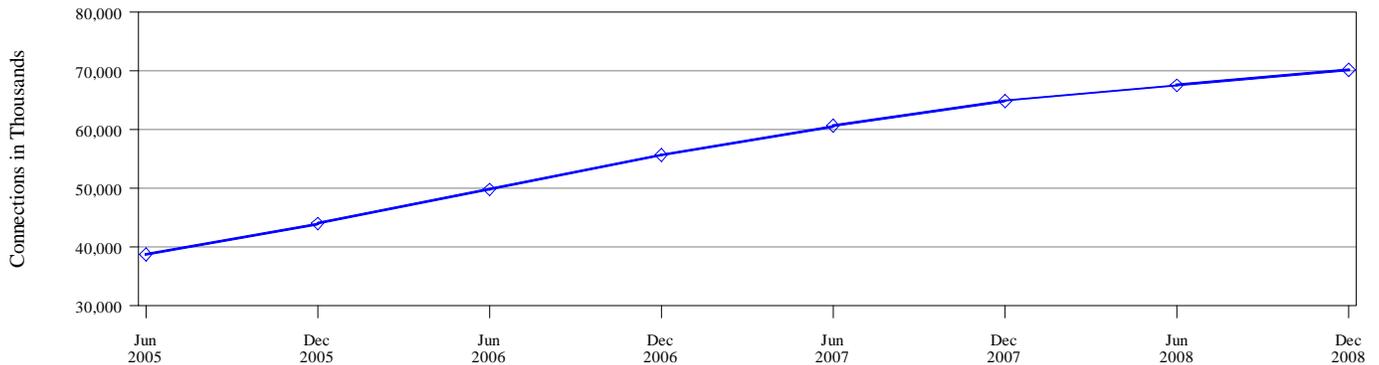
Technology	2005		2006		2007		2008	
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Total	38,696	43,965	50,941	58,344	66,173	73,984	79,090	<b>85,966</b>
Total Fixed	38,694	43,956	49,784	55,652	60,628	64,875	67,554	<b>70,148</b>
aDSL	14,443	17,371	20,152	22,768	24,962	26,475	26,950	<b>26,481</b>
sDSL	154	122	103	105	105	82	81	<b>74</b>
Other Wireline	6	7	9	13	12	17	32	<b>42</b>
Cable Modem	23,578	25,714	28,388	31,118	33,336	35,341	36,901	<b>39,788</b>
FTTP <sup>1</sup>	83	213	444	764	1,153	1,683	2,139	<b>2,715</b>
Satellite	265	320	382	456	530	626	705	<b>630</b>
Fixed Wireless	161	203	301	424	523	644	741	<b>413</b>
Power Line and Other	4	5	5	5	5	5	5	<b>5</b>
Mobile Wireless <sup>2</sup>	3	9	1,157	2,692	5,545	9,109	11,536	<b>15,818</b>

<sup>1</sup> Fiber to the premises.

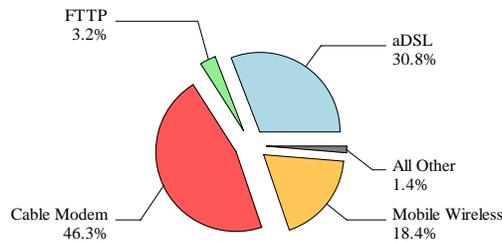
<sup>2</sup> Reporting instructions for mobile wireless changed between the June 2008 and December 2008 data. See additional notes following Table 2.8.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

**Chart 2.3**  
**Residential Fixed High-Speed Connections 2005-2008**



**Chart 2.4**  
**Residential High-Speed Connections by Technology as of December 31, 2008**



**Table 2.3**  
**Total High-Speed Connections by Speed Tier as of December 31, 2008**  
(Connections in thousands)

Technology	200 kbps or less Upstream			Over 200 kbps Upstream								Total
	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps	Subtotal	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps and less than 1.5 mbps	Download at least 1.5 mbps and less than 3 mbps	Download at least 3 mbps and less than 6 mbps	Download at least 6 mbps and less than 10 mbps	Download at least 10 mbps and less than 25 mbps	Download at least 25 mbps	Subtotal	
aDSL	1,174	2,455	3,628	2,080	5,969	9,252	8,357	769	135	#	26,562	30,190
sDSL	0	0	0	110	80	*	4	#	*	#	245	245
Other Wireline	0	0	0	110	88	392	62	22	16	22	711	711
Cable Modem	446	607	1,053	331	1,171	1,696	5,756	21,967	9,373	121	40,415	41,468
FTTP	5	1	6	19	40	79	697	37	1,970	34	2,876	2,881
Satellite	499	329	828	*	*	*	*	0	0	0	110	938
Fixed Wireless	70	22	92	101	109	123	45	9	9	1	397	488
Mobile Wireless	7,576	2,996	10,572	4,296	8,364	1,747	138	0	0	0	14,545	25,117
Power Line and Other	0	0	0	*	*	*	*	0	*	0	5	5
<b>Total</b>	<b>9,769</b>	<b>6,409</b>	<b>16,178</b>	<b>7,052</b>	<b>15,839</b>	<b>13,428</b>	<b>15,060</b>	<b>22,804</b>	<b>11,503</b>	<b>178</b>	<b>85,865</b>	<b>102,043</b>

Percentages

aDSL	3.9	8.1	12.0	6.9	19.8	30.6	27.7	2.5	0.4	0.0	88.0	100.0
sDSL	0.0	0.0	0.0	44.9	32.5	*	1.6	0.0	*	0.0	100.0	100.0
Other Wireline	0.0	0.0	0.0	15.5	12.3	55.1	8.7	3.1	2.2	3.1	100.0	100.0
Cable Modem	1.1	1.5	2.5	0.8	2.8	4.1	13.9	53.0	22.6	0.3	97.5	100.0
FTTP	0.2	0.0	0.2	0.7	1.4	2.7	24.2	1.3	68.4	1.2	99.8	100.0
Satellite	53.2	35.0	88.3	*	*	*	*	0.0	0.0	0.0	11.7	100.0
Fixed Wireless	14.2	4.5	18.7	20.8	22.3	25.2	9.2	1.9	1.8	0.2	81.3	100.0
Mobile Wireless	30.2	11.9	42.1	17.1	33.3	7.0	0.5	0.0	0.0	0.0	57.9	100.0
Power Line and Other	0.0	0.0	0.0	*	*	*	*	0.0	*	0.0	100.0	100.0
<b>Total</b>	<b>9.6</b>	<b>6.3</b>	<b>15.9</b>	<b>6.9</b>	<b>15.5</b>	<b>13.2</b>	<b>14.8</b>	<b>22.3</b>	<b>11.3</b>	<b>0.2</b>	<b>84.1</b>	<b>100.0</b>

# = Rounds to Zero.

\* = Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

**Table 2.4**  
**Residential High-Speed Connections by Speed Tier as of December 31, 2008**  
(Connections in thousands)

Technology	200 kbps or less Upstream			Over 200 kbps Upstream								Total
	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps	Subtotal	Download over 200 kbps and less than 768 kbps	Download at least 768 kbps and less than 1.5 mbps	Download at least 1.5 mbps and less than 3 mbps	Download at least 3 mbps and less than 6 mbps	Download at least 6 mbps and less than 10 mbps	Download at least 10 mbps and less than 25 mbps	Download at least 25 mbps	Subtotal	
aDSL	1,094	2,348	3,442	1,876	5,466	7,912	7,045	627	113	#	23,039	26,481
sDSL	0	0	0	37	22	*	1	#	*	0	74	74
Other Wireline	0	0	0	4	20	8	1	8	#	#	42	42
Cable Modem	415	595	1,010	317	1,111	1,553	5,353	21,355	9,020	70	38,779	39,788
FTTP	4	1	5	14	31	54	678	31	1,885	16	2,710	2,715
Satellite	354	203	557	*	*	*	*	0	0	0	73	630
Fixed Wireless	63	20	84	86	90	104	35	7	7	#	330	413
Mobile Wireless	4,709	1,828	6,537	2,928	5,079	1,156	119	0	0	0	9,281	15,818
Power Line and Other	0	0	0	*	*	*	*	0	*	0	5	5
<b>Total</b>	<b>6,639</b>	<b>4,995</b>	<b>11,634</b>	<b>5,267</b>	<b>11,835</b>	<b>10,857</b>	<b>13,232</b>	<b>22,027</b>	<b>11,028</b>	<b>86</b>	<b>74,333</b>	<b>85,966</b>

Percentages

aDSL	4.1	8.9	13.0	7.1	20.6	29.9	26.6	2.4	0.4	0.0	87.0	100.0
sDSL	0.0	0.0	0.0	49.6	29.6	*	1.2	0.0	*	0.0	100.0	100.0
Other Wireline	0.0	0.0	0.0	9.0	48.4	19.8	3.4	18.9	0.6	0.0	100.0	100.0
Cable Modem	1.0	1.5	2.5	0.8	2.8	3.9	13.5	53.7	22.7	0.2	97.5	100.0
FTTP	0.2	0.0	0.2	0.5	1.2	2.0	25.0	1.2	69.5	0.6	99.8	100.0
Satellite	56.1	32.2	88.3	*	*	*	*	0.0	0.0	0.0	11.7	100.0
Fixed Wireless	15.3	4.9	20.2	20.8	21.7	25.3	8.5	1.7	1.8	0.1	79.8	100.0
Mobile Wireless	29.8	11.6	41.3	18.5	32.1	7.3	0.8	0.0	0.0	0.0	58.7	100.0
Power Line and Other	0.0	0.0	0.0	*	*	*	*	0.0	*	0.0	100.0	100.0
<b>Total</b>	<b>7.7</b>	<b>5.8</b>	<b>13.5</b>	<b>6.1</b>	<b>13.8</b>	<b>12.6</b>	<b>15.4</b>	<b>25.6</b>	<b>12.8</b>	<b>0.1</b>	<b>86.5</b>	<b>100.0</b>

# = Rounds to Zero.

\* = Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

**Table 2.5**  
**High-Speed Connections by Technology by State as of December 31, 2008**  
 (Connections over 200 kbps in at least one direction, in thousands)

State	ADSL	SDSL	Other Wireline	Cable Modem	Fiber	Satellite	Fixed Wireless	Mobile Wireless	Power Line and Other	Total
Alabama	457	4	9	460	3	*	1	281	*	1,235
Alaska	75	4	#	*	#	*	4	43	0	224
American Samoa	*	*	0	0	0	0	*	0	0	*
Arizona	466	2	*	987	2	*	20	522	0	2,033
Arkansas	273	#	*	248	1	*	1	178	0	723
California	4,617	22	*	3,994	315	*	23	3,494	0	12,649
Colorado	624	2	*	659	3	*	28	461	0	1,816
Connecticut	*	2	5	615	2	*	*	338	0	1,402
Delaware	*	#	4	*	*	*	0	77	0	330
District of Columbia	*	2	4	*	1	*	*	181	0	375
Florida	2,005	5	*	2,825	247	*	5	1,542	0	6,729
Georgia	1,242	2	*	973	16	*	#	773	0	3,065
Guam	*	*	*	*	0	0	0	*	0	25
Hawaii	*	*	1	*	1	*	*	146	0	498
Idaho	160	1	*	121	1	*	21	133	0	448
Illinois	1,503	9	*	1,591	5	*	37	1,057	0	4,265
Indiana	672	4	9	626	55	*	24	384	*	1,796
Iowa	336	3	*	330	9	*	25	115	0	837
Kansas	243	1	*	425	13	*	16	207	0	924
Kentucky	421	7	*	452	4	*	3	246	0	1,154
Louisiana	385	1	*	518	19	*	2	395	0	1,346
Maine	114	4	1	288	1	*	*	40	0	454
Maryland	471	7	24	799	*	*	#	595	0	2,193
Massachusetts	*	3	17	1,307	*	*	1	566	0	2,600
Michigan	779	8	16	1,411	4	*	17	606	*	2,881
Minnesota	544	30	*	666	14	*	20	357	0	1,662
Mississippi	229	#	*	216	1	*	#	142	0	614
Missouri	727	1	13	553	4	*	12	364	*	1,711
Montana	108	3	1	92	1	*	13	*	0	320
Nebraska	151	1	*	278	2	*	16	152	0	607

**Table 2.5 - Continued**  
**High-Speed Connections by Technology by State as of December 31, 2008**  
 (Connections over 200 kbps in at least one direction, in thousands)

State	ADSL	SDSL	Other Wireline	Cable Modem	Fiber	Satellite	Fixed Wireless	Mobile Wireless	Power Line and Other	Total
Nevada	222	1	8	*	1	*	7	257	0	918
New Hampshire	91	2	3	298	*	*	#	85	0	499
New Jersey	666	4	26	1,637	*	*	*	903	0	3,517
New Mexico	231	#	*	146	1	*	15	141	0	546
New York	1,122	17	38	4,139	*	*	3	1,708	0	7,405
North Carolina	891	1	*	1,551	5	*	1	701	0	3,203
North Dakota	62	1	*	85	10	*	5	41	0	206
Northern Mariana Isl	*	0	*	*	*	0	*	*	0	*
Ohio	1,069	9	15	1,943	6	*	20	816	*	3,910
Oklahoma	337	1	*	408	4	*	8	239	0	1,022
Oregon	371	11	*	516	54	*	7	267	0	1,252
Pennsylvania	1,232	12	23	1,807	*	*	1	871	0	4,225
Puerto Rico	*	*	3	*	#	*	*	126	0	464
Rhode Island	*	1	2	*	*	*	*	81	0	378
South Carolina	400	#	10	752	14	*	*	313	0	1,501
South Dakota	54	3	#	122	9	*	7	*	0	246
Tennessee	542	1	*	717	28	*	2	452	0	1,784
Texas	2,607	9	*	2,081	258	*	37	2,349	0	7,484
Utah	299	4	6	*	5	*	30	189	0	762
Vermont	61	*	1	71	*	*	*	*	0	168
Virgin Islands	*	*	*	0	0	*	*	*	0	21
Virginia	553	3	30	1,096	252	*	9	901	*	2,887
Washington	599	7	16	980	37	*	11	682	*	2,357
West Virginia	152	*	3	205	#	*	1	80	0	452
Wisconsin	556	16	5	810	5	*	15	306	*	1,739
Wyoming	57	2	*	64	#	*	3	43	0	175
Total	30,190	245	711	41,468	2,881	938	488	25,117	5	102,043

# = Rounds to Zero.

\* = Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

**Table 2.6**  
**Percentage of High-Speed Connections by Download Speed by State as of December 31, 2008**  
 (Connections over 200 kbps in at least one direction)

State	Over 200 kbps Upstream and				
	% Over 200 kbps Downstream	% at least 768 kbps Downstream	% at least 3 mbps Downstream	% at least 6 mbps Downstream	% at least 10 mbps Downstream
Alabama	82.3	76.1	44.3	17.9	4.3
Alaska	76.0	58.9	*	*	*
American Samoa	*	*	*	*	*
Arizona	85.3	76.3	43.2	37.6	13.5
Arkansas	82.7	76.6	*	*	*
California	86.2	78.3	40.5	19.7	3.9
Colorado	87.8	77.5	44.5	39.0	1.5
Connecticut	87.9	80.8	46.5	37.5	*
Delaware	82.5	75.6	*	*	*
District of Columbia	62.6	55.7	39.6	22.6	5.0
Florida	86.0	82.2	51.8	40.3	8.6
Georgia	81.8	76.7	43.8	23.7	1.8
Guam	*	*	*	*	*
Hawaii	92.5	88.3	60.5	*	*
Idaho	81.6	72.4	35.1	*	*
Illinois	87.9	79.6	43.0	31.9	7.5
Indiana	84.3	76.2	45.8	32.6	13.9
Iowa	87.0	74.6	46.5	*	*
Kansas	83.3	77.0	42.8	33.7	3.8
Kentucky	88.5	76.7	49.3	31.2	26.2
Louisiana	85.3	81.7	39.0	*	*
Maine	86.0	82.9	69.4	57.6	4.0
Maryland	78.3	72.1	59.0	40.2	11.7
Massachusetts	81.5	76.4	65.2	46.9	11.0
Michigan	85.6	78.8	48.3	32.6	*
Minnesota	85.9	77.3	45.1	31.1	3.9
Mississippi	85.4	76.2	*	*	*
Missouri	85.4	77.4	36.6	16.8	5.2
Montana	72.9	57.9	31.7	*	*
Nebraska	81.5	71.1	45.2	*	*

**Table 2.6 - Continued**  
**Percentage of High-Speed Connections by Download Speed by State as of December 31, 2008**  
 (Connections over 200 kbps in at least one direction)

State	Over 200 kbps Upstream and				
	% Over 200 kbps Downstream	% at least 768 kbps Downstream	% at least 3 mbps Downstream	% at least 6 mbps Downstream	% at least 10 mbps Downstream
Nevada	88.8	83.0	44.3	30.4	6.6
New Hampshire	81.1	75.7	66.8	54.6	3.7
New Jersey	80.9	75.6	64.0	53.4	35.1
New Mexico	81.1	70.3	*	*	*
New York	83.1	79.1	65.5	56.4	55.6
North Carolina	81.0	76.6	53.1	38.0	4.1
North Dakota	85.0	75.3	*	*	*
Northern Mariana Isl	*	*	*	*	*
Ohio	80.7	74.0	48.8	37.2	4.5
Oklahoma	90.2	84.8	40.2	28.0	3.0
Oregon	87.3	79.4	51.1	39.2	5.3
Pennsylvania	79.9	73.5	57.1	37.5	8.9
Puerto Rico	94.5	69.6	*	*	*
Rhode Island	85.5	80.9	*	*	*
South Carolina	80.2	75.9	54.9	33.1	3.5
South Dakota	81.0	72.6	*	*	*
Tennessee	81.2	73.5	46.6	29.0	2.9
Texas	86.3	78.1	37.6	24.3	5.2
Utah	88.6	78.5	39.5	33.2	2.9
Vermont	74.0	68.9	*	*	*
Virgin Islands	55.9	13.6	0.1	0.1	0.0
Virginia	78.8	69.5	52.6	38.0	21.5
Washington	85.7	78.5	48.0	40.6	4.8
West Virginia	83.5	75.8	*	*	*
Wisconsin	87.8	81.2	50.3	27.8	6.4
Wyoming	82.9	68.2	*	*	*
Total	84.1	77.2	48.6	33.8	11.4

\* = Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

**Table 2.7**  
**Percentage of Residential End-User Premises with Access to High-Speed Services by State as of December 31, 2008**  
 (Connections over 200 kbps in at least one direction)

State	xDSL Availability Where ILECs Offer Local Telephone Service	Cable Modem Availability Where Cable Systems Offer Cable TV Service
Alabama	80	92
Alaska	79	*
American Samoa	*	0
Arizona	86	93
Arkansas	78	72
California	89	98
Colorado	89	96
Connecticut	*	100
Delaware	*	*
District of Columbia	*	*
Florida	92	97
Georgia	96	90
Guam	*	*
Hawaii	*	*
Idaho	80	99
Illinois	86	97
Indiana	81	94
Iowa	87	91
Kansas	84	95
Kentucky	86	93
Louisiana	84	97
Maine	73	96
Maryland	76	95
Massachusetts	*	100
Michigan	74	91
Minnesota	88	97
Mississippi	76	91
Missouri	81	95
Montana	80	80
Nebraska	87	94
Nevada	90	*
New Hampshire	63	98
New Jersey	88	100
New Mexico	87	80
New York	79	99
North Carolina	89	96
North Dakota	87	92
Northern Mariana Isl	*	*
Ohio	85	98
Oklahoma	80	89
Oregon	83	96
Pennsylvania	85	98
Puerto Rico	*	*
Rhode Island	*	*
South Carolina	85	93
South Dakota	83	87
Tennessee	84	98
Texas	81	96
Utah	90	*
Vermont	72	91
Virgin Islands	*	0
Virginia	69	96
Washington	84	95
West Virginia	66	88
Wisconsin	83	96
Wyoming	78	85
Total	84	96

\* = Data withheld to maintain firm confidentiality. Figures are presented to the nearest percent.

Note: This table summarizes responses to Form 477 questions about service availability based on filers' best estimates, as opposed to subscribership. xDSL includes both asymmetric and symmetric DSL. Each state-specific estimate is a weighted average of the availability percentages that ILECs or cable system operators report for the areas they serve. Reported xDSL availability is weighted by ILEC end-user switched access lines and VoIP lines. Reported cable modem availability is weighted by cable TV subscribers. The weighted averages include ILECs or cable system operators that report no availability.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

**Table 2.8**  
**Residential Fixed High-Speed Connections and Households by State as of December 31, 2008**  
 (Connections over 200 kbps in at least one direction and Households, in thousands)

State	Connections	Households	Subscribership Ratio
Alabama	861	1,821	0.47
Alaska	155	248	0.62
American Samoa	*	9	*
Arizona	1,403	2,436	0.58
Arkansas	487	1,119	0.44
California	8,311	12,646	0.66
Colorado	1,230	1,886	0.65
Connecticut	973	1,362	0.71
Delaware	236	337	0.70
District of Columbia	170	263	0.65
Florida	4,697	7,436	0.63
Georgia	2,062	3,628	0.57
Guam	*	39	*
Hawaii	*	450	*
Idaho	283	562	0.50
Illinois	2,943	4,775	0.62
Indiana	1,299	2,457	0.53
Iowa	654	1,180	0.55
Kansas	648	1,077	0.60
Kentucky	829	1,687	0.49
Louisiana	851	1,609	0.53
Maine	392	540	0.73
Maryland	1,461	2,140	0.68
Massachusetts	1,892	2,493	0.76
Michigan	2,081	3,869	0.54
Minnesota	1,188	2,011	0.59
Mississippi	418	1,076	0.39
Missouri	1,220	2,323	0.53
Montana	192	385	0.50
Nebraska	411	698	0.59
Nevada	603	1,015	0.59
New Hampshire	389	514	0.76
New Jersey	2,408	3,202	0.75
New Mexico	365	748	0.49
New York	5,260	7,297	0.72
North Carolina	2,277	3,617	0.63
North Dakota	146	255	0.57
Northern Mariana Isl	*	14	*
Ohio	2,844	4,495	0.63
Oklahoma	701	1,423	0.49
Oregon	890	1,489	0.60
Pennsylvania	3,113	4,831	0.64
Puerto Rico	301	1,262	0.24
Rhode Island	274	418	0.66
South Carolina	1,084	1,721	0.63
South Dakota	176	310	0.57
Tennessee	1,197	2,455	0.49
Texas	4,655	8,730	0.53
Utah	518	858	0.60
Vermont	135	247	0.55
Virgin Islands	14	41	0.34
Virginia	1,824	3,003	0.61
Washington	1,533	2,533	0.61
West Virginia	343	737	0.47
Wisconsin	1,310	2,200	0.60
Wyoming	112	206	0.54
Total	70,148	116,181	0.60

# = Rounds to Zero; \* = Data withheld to maintain firm confidentiality.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *High-Speed Services for Internet Access: Status as of December 31, 2008* (February 2010).

## **Notes for Tables 2.1 – 2.8 and Charts 2.1 – 2.4**

### **General**

Figures may not sum to totals due to rounding. Summary statistics are for FCC Form 477 data. Form 477 collects information about Internet access connections in service to end-user locations that are advertised to deliver information to and/or from the end user – that is, in at least one direction – at transfer rates (“speeds”) above 200 kilobits per second (kbps). End users are residential, business, institutional, or government entities who use services for their own purposes and who do not resell such services to other entities. Numbers of connections are not adjusted for the number of persons at a single end-user location who have access to, or who use, the Internet access services delivered over the connection to that location. Numbers of residential connections are estimated based on the total connections and percentage-residential connections information reported on Form 477.

Information is collected about connections in 72 speed tiers (nine upstream tiers and eight downstream) defined by ranges of upstream speeds and downstream speeds and by the technology employed by the part of the connection that terminates at the end-user location. The mutually exclusive Form 477 technology categories are: asymmetric Digital Subscriber Line (“aDSL”), symmetric Digital Subscriber Line (“sDSL”), other wireline, cable modem, optical fiber to the end-user premises, satellite, fixed wireless (using licensed or unlicensed spectrum), mobile wireless (using licensed or unlicensed spectrum), electric power line, and all other (which is included to capture deployment of additional technologies over time).

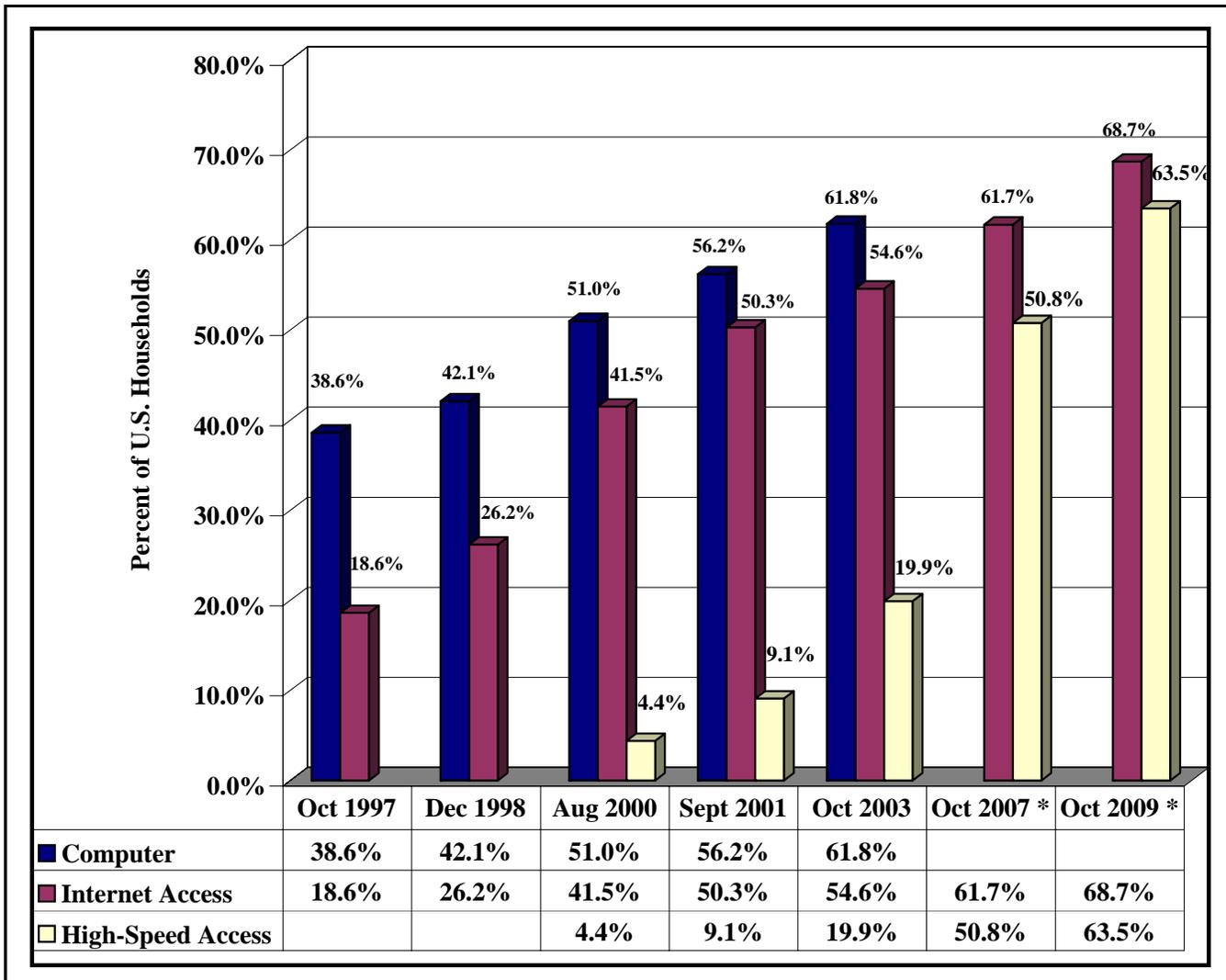
### **Mobile wireless**

Changed reporting instructions starting in December 2008 caused a one-time decrease in the reported number of high-speed mobile wireless Internet access service connections. For reporting periods through June 2008, Form 477 instructed mobile wireless providers to report the number of subscribers whose mobile device (such as a wireless modem laptop card, smartphone, or handset) was capable of sending or receiving data at speeds above 200 kbps. The Commission found these instructions insufficiently precise to enable it to determine, from the reported data, the number of subscribers making regular use of Internet access service above 200 kbps as part of their mobile service package.

Starting with the December 2008 data, Form 477 requires mobile wireless providers to report the number of subscribers that have a capable device (as just defined) for which the subscription includes a data plan for transferring, on a monthly basis, either a specified or an unlimited amount of data to and from Internet sites of the subscriber’s choice, and excluding subscribers whose choice of content is restricted to only customized-for-mobile content (for example, text and multimedia messaging, or the capacity to download ringtones and games).

Also, changed instructions about distinguishing residential subscribers from other subscribers in the December 2008, and later, data caused some mobile wireless providers to report a larger share of residential subscribers than they had reported for earlier dates.

**Chart 2.5**  
**Percent of U.S. Households**  
**With Computers, Internet Access, and High-Speed Access at Home**  
**Selected Years (1997 - 2009)**



\* Data on computer penetration are not available for 2007 and 2009.

Source: U.S. Department of Commerce, National Telecommunications and Information Administration (NTIA), *Digital Nation: 21st Century America's Progress Toward Universal Broadband Internet Access* (February 2010), available through NTIA's website at [www.ntia.doc.gov](http://www.ntia.doc.gov).

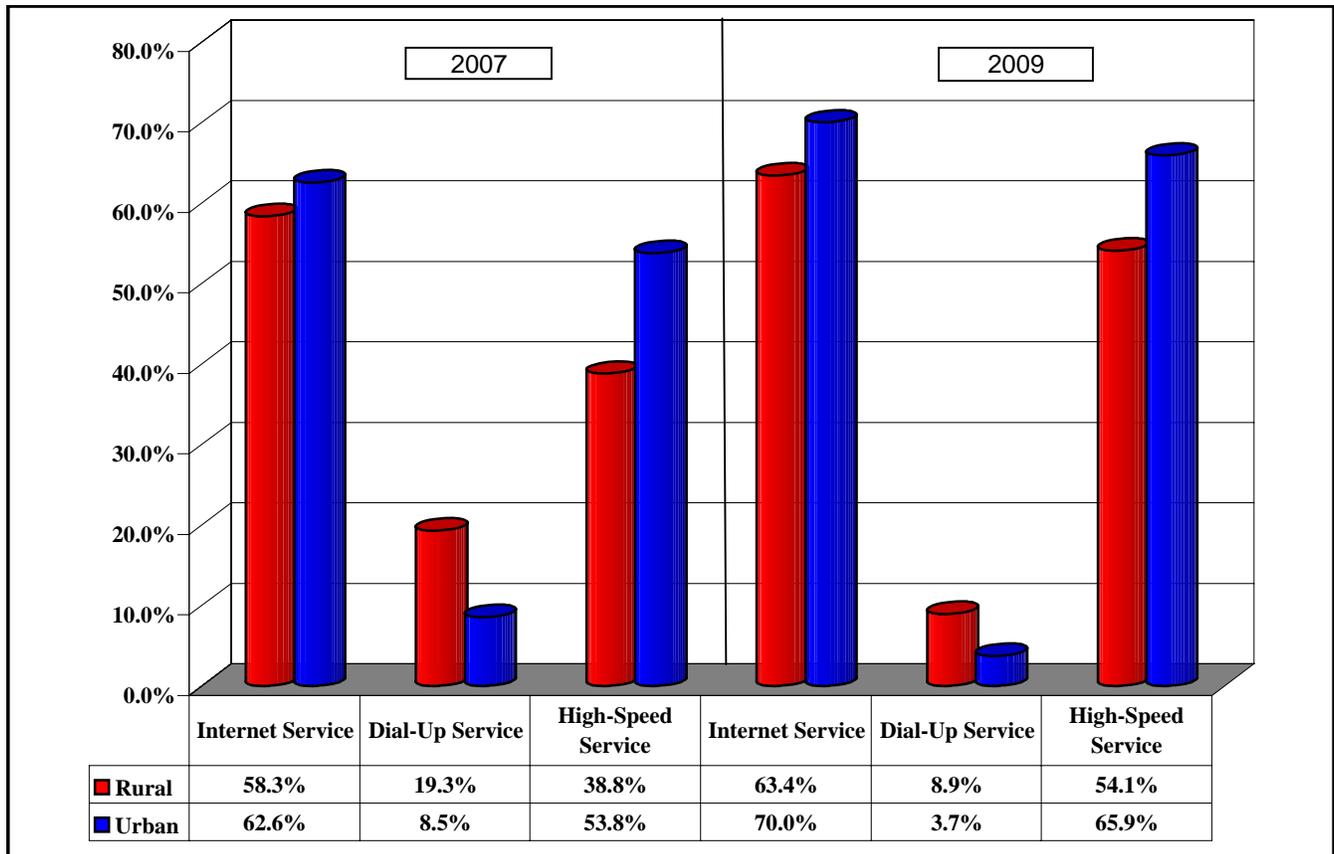
**Table 2.9**  
**Percent of U.S. Households with Internet Connections at Home**  
**Rural versus Urban**  
**(As of October 2007 and October 2009)**

	Rural		Urban		Total	
	2007	2009	2007	2009	2007	2009
<b>Internet Service</b>	58.3%	63.4%	62.6%	70.0%	61.7%	68.7%
Dial-Up Service	19.3%	8.9%	8.5%	3.7%	10.7%	4.7%
High-Speed Service	38.8%	54.1%	53.8%	65.9%	50.8%	63.5%
Other	0.3%	0.4%	0.2%	0.4%	0.2%	0.4%

Note: Figures may not add up due to rounding.

Source: U.S. Department of Commerce, National Telecommunications and Information Administration (NTIA), *Broadband in America, 2007* (January 2008); U.S. Department of Commerce, NTIA, *Digital Nation: 21st Century America's Progress Toward Universal Broadband Internet Access* (February 2010); and Supplemental Current Population Survey (CPS) Internet Tables at [http://www.ntia.doc.gov/data/CPSTables/t11\\_2lst.txt](http://www.ntia.doc.gov/data/CPSTables/t11_2lst.txt).

**Chart 2.6**  
**Percent of U.S. Households with Internet Connections at Home**  
**Rural versus Urban**  
**(As of October 2007 and October 2009)**



### 3 Consumer Expenditures

The Bureau of Labor Statistics conducts surveys of consumer expenditures, in part, to develop weights for CPI indices. Table 3.1 shows total annual expenditures for telephone service for all consumer units.

About 2% of all consumer expenditures are devoted to telephone service. This percentage has remained virtually unchanged over the past twenty years, despite major changes in the telephone industry and in telephone usage. Average annual expenditures on telephone service increased from \$360 per household in 1981 to \$1,100 in 2008.

Bill Harvesting® data collected by TNS Telecoms provide information on the telecommunications expenditures of households. (Additional information on TNS Telecoms can be found in Section 14 and Appendix B.)

Expenditures can be classified by the type of service provider. Table 3.2 presents average monthly household bills from wireline and wireless providers for 1995 through 2008.<sup>1</sup> The upper portion of the table shows average monthly expenditures for the entire sample of households while the lower shows average monthly expenditures among those households billed by each type of service provider. The average monthly household expenditures are greater in the latter portion of the table since those households not billed for particular services are removed from the average.

Another measure of consumer expenditures for telephone service is provided by the Bureau of Economic Analysis. Table 3.3 and Table 3.4 show estimates of personal consumption expenditures by households for landline, cellular and internet services by households. Charts 3.1 and 3.2 illustrate the increasing importance of the wireless and Internet share of household telecommunications service expenditures.

---

<sup>1</sup> In this Trends Report, expenditures for local exchange providers and long distance providers have been combined. The breakout between local exchange and long distance expenditures has become more difficult to identify over time as LECs have increased the amount of bundled services that they provide to consumers.

**Table 3.1**  
**Household Expenditures for Telephone Service**

Year	Annual Expenditures for All Households		Telephone Expenditures as a Percent of All Expenditures
	All Expenditures	Telephone Expenditures	
1981	\$17,558	\$360	2.1 %
1982	18,071	375	2.1
1983	19,692	415	2.1
1984	21,975	435	2.0
1985	23,490	455	1.9
1986	23,866	471	2.0
1987	24,414	499	2.0
1988	25,892	537	2.1
1989	27,810	567	2.0
1990	28,381	592	2.1
1991	29,614	618	2.1
1992	29,846	623	2.1
1993	30,692	658	2.1
1994	31,731	690	2.2
1995	32,264	708	2.2
1996	33,797	772	2.3
1997	34,819	809	2.3
1998	35,535	830	2.3
1999	36,995	849	2.3
2000	38,045	877	2.3
2001	39,518	914	2.3
2002	40,677	957	2.4
2003	40,817	956	2.3
2004	43,395	990	2.3
2005	46,409	1,048	2.3
2006	48,398	1,087	2.2
2007	49,638	1,100	2.2
2008	50,486	1,127	2.2

Source: Bureau of Labor Statistics, *Consumer Expenditure Survey*.

**Table 3.2**  
**Average Monthly Household Telecommunications Expenditures**  
**By Type of Provider**

(Averages for all Households)

Year	Wireline Providers	Wireless Providers	Total
1995	\$51	\$7	\$58
1996	51	9	60
1997	57	11	68
1998	56	14	70
1999	55	17	72
2000	53	23	76
2001	51	29	80
2002	48	35	83
2003	47	41	88
2004	45	47	92
2005	44	53	97
2006	44	58	102
2007	45	68	113
2008	48	78	125

(Averages for only those Households Billed for Service)

Year	Wireline Providers	Wireless Providers	Total
1995	\$54	\$46	\$100
1996	56	45	101
1997	60	40	100
1998	61	41	102
1999	59	42	101
2000	59	46	105
2001	57	51	108
2002	55	56	111
2003	53	62	115
2004	49	67	116
2005	49	74	122
2006	48	78	126
2007	48	85	133
2008	50	92	142

Note: **Average monthly household expenditures are estimates based on sample data.** All households in the sample have wireline telephone service. Households in Alaska and Hawaii are excluded from the analysis. No effort was made to distinguish bundled prices from a la carte prices. For households taking bundled local and long distance from the same provider, the entire bill is generally considered local.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*<sup>®</sup>.

**Table 3.3**  
**Personal Consumption Expenditures (PCE)**  
**(Expenditure Amounts Shown in Millions)**

	Personal Consumption Expenditures 1/	Landline Telephone Services 2/	Cellular Telephone Services 3/	Internet Access Services 4/	Total Telephone and Internet Access	Telephone & Internet Access as a Percentage of PCE	As a Percentage of Total Telephone and internet Access		
							Landline	Cellular	Internet
1980	\$1,755,826	\$27,574	\$0	\$0	\$27,574	1.6 %	100 %	0 %	0 %
1981	1,939,506	30,889	0	0	30,889	1.6	100	0	0
1982	2,075,495	35,140	0	0	35,140	1.7	100	0	0
1983	2,288,576	38,639	0	0	38,639	1.7	100	0	0
1984	2,501,083	41,786	0	0	41,786	1.7	100	0	0
1985	2,717,608	45,877	101	0	45,978	1.7	100	0	0
1986	2,896,746	49,088	173	0	49,261	1.7	100	0	0
1987	3,096,960	51,637	242	0	51,879	1.7	100	0	0
1988	3,350,056	53,799	591	25	54,415	1.6	99	1	0
1989	3,594,490	56,783	1,352	50	58,185	1.6	98	2	0
1990	3,835,453	58,456	2,246	100	60,802	1.6	96	4	0
1991	3,980,073	60,915	3,088	200	64,203	1.6	95	5	0
1992	4,236,891	66,133	4,866	305	71,304	1.7	93	7	0
1993	4,483,594	68,585	6,423	412	75,420	1.7	91	9	1
1994	4,750,806	72,770	8,522	805	82,097	1.7	89	10	1
1995	4,987,280	73,893	11,274	1,611	86,778	1.7	85	13	2
1996	5,273,608	79,036	13,735	2,675	95,446	1.8	83	14	3
1997	5,570,626	87,443	15,706	3,575	106,724	1.9	82	15	3
1998	5,918,488	91,625	19,455	5,549	116,629	2.0	79	17	5
1999	6,342,784	95,796	24,204	10,055	130,055	2.1	74	19	8
2000	6,830,371	97,636	32,590	16,437	146,663	2.1	67	22	11
2001	7,148,807	96,817	40,763	18,243	155,823	2.2	62	26	12
2002	7,439,191	90,907	48,933	21,929	161,769	2.2	56	30	14
2003	7,804,013	85,499	54,667	26,128	166,294	2.1	51	33	16
2004	8,285,080	81,662	61,458	28,451	171,571	2.1	48	36	17
2005	8,819,002	76,677	69,390	29,888	175,955	2.0	44	39	17
2006	9,322,662	79,566	78,224	32,301	190,091	2.0	42	41	17
2007	9,826,438	76,053	85,940	38,606	200,599	2.0	38	43	19
2008	10,129,919	76,454	91,517	42,470	210,441	2.1	36	43	20
2009	10,089,069	76,600	94,543	44,144	215,287	2.1	36	44	21

Note: All series revised for all years

1/ Personal Consumption Expenditures (Series DPCERC).

2/ Represents the sum of two series: Landline Local Telephone Service (Series DLOCRC) and Landline Long Distance Telephone Services (Series DLDTRC).

3/ Cellular Telephone Service (Series DCELRC).

4/ Internet Access (Series DINTRC).

Source: Bureau Of Economic Analysis, National Economic Accounts, Table 2.4.5U. Personal Consumption Expenditures by Type of Product. See [http://www.bea.gov/national/nipaweb/nipa\\_underlying/SelectTable.asp](http://www.bea.gov/national/nipaweb/nipa_underlying/SelectTable.asp), last visited June 8, 2010.

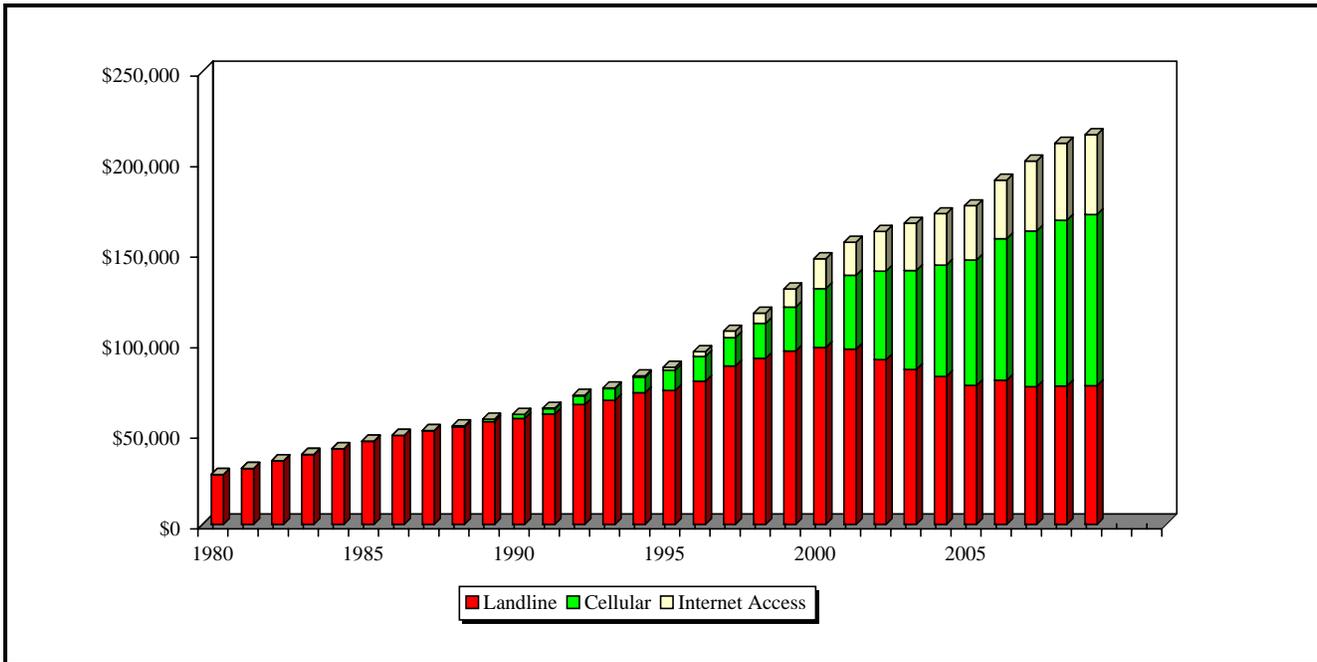
**Table 3.4**  
**Personal Consumption Expenditures**  
**Per Household Per Month 1/**

	<b>Households in July (Millions)</b>	<b>All Consumption Expenditures</b>	<b>Landline Telephone Services</b>	<b>Cellular Telephone Services</b>	<b>Internet Access Services</b>	<b>Total Telephone and Internet Access</b>
1980	81.9	\$1,786	\$28	\$0	\$0	\$28
1981	83.5	1,935	31	0	0	31
1982	84.7	2,042	35	0	0	35
1983	85.1	2,241	38	0	0	38
1984	86.6	2,407	40	0	0	40
1985	88.2	2,568	43	0	0	43
1986	89.5	2,697	46	0	0	46
1987	90.7	2,845	47	0	0	48
1988	92.4	3,021	49	1	0	49
1989	93.8	3,193	50	1	0	52
1990	94.8	3,372	51	2	0	53
1991	95.5	3,473	53	3	0	56
1992	96.6	3,655	57	4	0	62
1993	97.9	3,816	58	5	0	64
1994	98.6	4,015	62	7	1	69
1995	100.0	4,156	62	9	1	72
1996	101.2	4,343	65	11	2	79
1997	102.3	4,538	71	13	3	87
1998	103.4	4,770	74	16	4	94
1999	105.1	5,029	76	19	8	103
2000	105.8	5,380	77	26	13	116
2001	106.9	5,573	75	32	14	121
2002	108.5	5,714	70	38	17	124
2003	112.1	5,801	64	41	19	124
2004	113.5	6,083	60	45	21	126
2005	114.4	6,424	56	51	22	128
2006	116.2	6,686	57	56	23	136
2007	117.7	6,957	54	61	27	142
2008	118.0	7,154	54	65	30	149
2009	118.0	7,125	54	67	31	152

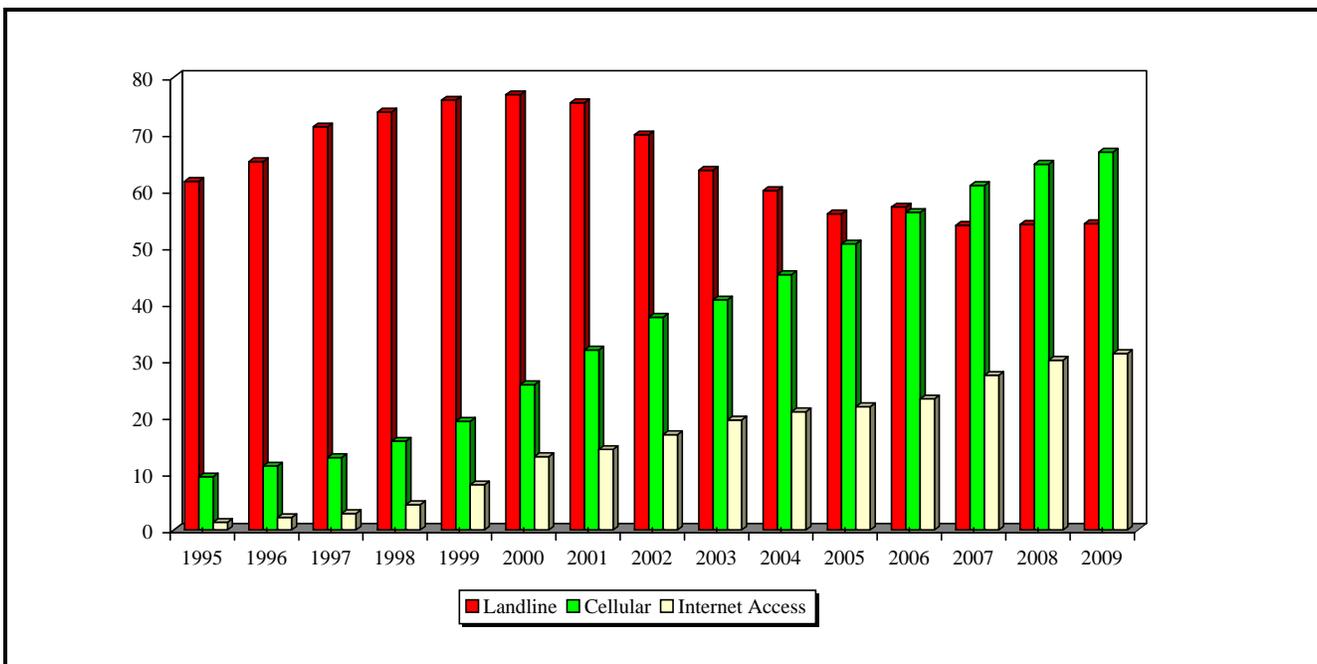
1/ Expenditure amounts per month were calculated as the amounts shown in Table 3.3 divided by the number of households as of July.

Source: Number of households from the Census Bureau's Current Population Survey. Expenditure data from the Bureau Of Economic Analysis, National Economic Accounts, Table 2.4.5U. Personal Consumption Expenditures by Type of Product.  
 See [http://www.bea.gov/national/nipaweb/nipa\\_underlying/SelectTable.asp](http://www.bea.gov/national/nipaweb/nipa_underlying/SelectTable.asp) last visited June 8, 2010.

**Chart 3.1**  
**Personal Consumption Expenditures for Telephone Service and Internet Access**  
 (\$ Millions)



**Chart 3.2**  
**Monthly Personal Consumption Expenditures for Telephone Service per Household**



## 4 Earnings

Beginning in the mid-1980s, local exchange carriers that file access tariffs with the Commission were required to file rate-of-return reports (FCC Form 492). The first reports were filed for the monitoring period October 1, 1985 - December 31, 1986. Carriers filed reports for each subsequent two-year monitoring period (1987-88 and 1989-90).

In 1991, carriers that became subject to price-cap incentive regulation began filing reports on a yearly basis. Non-price-cap carriers filed annual reports for each monitoring period. Table 4.1 is a summary of interstate rates of return for 2000-2008 filed by price-cap carriers. Beginning in 2008, AT&T, Qwest, and Verizon no longer file FCC Form 492A.<sup>1</sup> Rates of return for 1991-1999 can be found in the August 2001 *Trends* report which can be accessed at [www.fcc.gov/wcb/stats](http://www.fcc.gov/wcb/stats).

The rates of return shown in Table 4.1 were those posted at the time of the carriers' individual FCC Form 492 filings. They do not reflect revisions filed by the carriers at a later date. Thus, they are not necessarily the official versions for regulatory purposes, but they do illustrate general industry trends. Summaries of the filings can be found on the Wireline Competition Bureau Statistical Reports web site at [www.fcc.gov/wcb/stats](http://www.fcc.gov/wcb/stats). Copies of the FCC Form 492A reports are on file in the FCC's Reference Information Center, Courtyard Level, 445 12th Street S.W., Washington, D.C. 20554.

---

<sup>1</sup> The Commission's *MO&O in Petition of AT&T For Forbearance, WC Docket No. 07-21, et al*, 23 FCC Rcd 7302 (2008), granted AT&T conditional forbearance from filing FCC 492A, the Rate of Return Monitoring Report, subject to approval of a compliance plan. On December 12, 2008, the Commission extended the same relief, subject to the same conditions, to Verizon and Qwest. On December 31, 2008, in a Public Notice, the Wireline Competition Bureau approved the three plans effective immediately. Therefore, the 2007 preliminary reported data will also be their final data. AT&T, Verizon, and Qwest entities will no longer file Report Form 492A for year 2008 and subsequent years.

**Table 4.1**  
**Interstate Rate of Return Summary \***  
**Years 2000 through 2008**  
**Price-Cap Companies Reporting FCC Form 492A**  
**(Final Reports for 2000 Through 2007 and Initial Report for 2008) <sup>1</sup>**

Reporting Entity	2008	2007	2006	2005	2004	2003	2002	2001	2000
<b>AT&amp;T, Inc.</b>	11								
1 BellSouth Telecommunications Inc		24.54 %	15.88 %	25.00 %	22.68 %	21.93 %	19.35 %	21.25 %	22.83 %
2 Ameritech Operating Companies		40.11	33.26	27.92	22.51	20.55	20.24	25.72	30.24
3 Nevada Bell Telephone Company		33.51	33.54	31.29	24.76	20.16	14.86	20.86	21.55
4 Pacific Bell Telephone Company		62.43	48.67	36.81	28.77	26.23	21.00	23.79	19.20
5 Southern New England Telephone Company, The		31.55	28.62	27.47	21.82 <sup>6</sup>	23.93	18.47	23.57	18.21
6 Southwestern Bell Telephone Company L.P.		31.66	26.73	20.27	16.38 <sup>6</sup>	15.60	14.88	18.81	15.17
7 <b>Qwest Corporation, Including Malheur and El Paso</b>	11	52.56	41.97	28.60 <sup>10</sup>	25.07	22.74	20.08	19.14	19.93
<b>Verizon Telephone Companies</b>	11								
8 Verizon Telephone Companies (Verizon FCC Tariff No. 1 & No. 11)		19.89	16.55	18.37	11.24	8.00	11.95	12.93	13.36
9 Verizon California Inc. (California - GTCA)		39.60	32.18	27.89	34.99	29.17	28.50	28.48	25.87
10 Verizon California Inc. (Arizona - COAZ)		81.40	19.58	26.11	6.17	2.05	6.99	13.25	10.90
11 Verizon California Inc. (California - COCA)		85.67	54.32	40.93	36.93	30.64	28.22	29.80	28.74
12 Verizon California Inc. (Nevada - CONV)		47.81	39.12	27.98	28.79	28.51	24.08	26.66	28.82
13 Verizon Florida Inc. (Florida - GTFL)		30.16	31.59	32.25	28.96	24.46	22.03	29.23	21.90
14 Verizon North Inc. (COPA + COQS = COPT)		36.03	32.55	38.92	32.88 <sup>6</sup>	40.74	43.61	39.71	41.05
15 Verizon North Inc. (Illinois - COIL)		48.90	42.82	41.27	41.72	60.34	54.09	53.67	44.51
16 Verizon North Inc. (Indiana - COIN)		70.42	54.82	51.36	40.36	47.34	46.06	46.55	47.67
17 Verizon North Inc. (Ohio - GTOH)		29.59	19.66	20.96	18.58	19.39	19.53	20.45	21.88
18 Verizon North Inc. (Pennsylvania - GTPA)		29.13	9.28	52.26	20.50	13.76	22.50	23.17	21.95
19 Verizon North Inc. (Wisconsin - GTWI)		21.76	17.16	13.86	11.53 <sup>6</sup>	10.85	9.90	14.16	16.99
20 Verizon North/Verizon South (GTIN + GLIN = GAIN)		26.98	19.97	22.78	22.34	22.64	24.75	32.82	33.00
21 Verizon North/Contel South (GTMI + GLMI = GAMI)		23.38	20.00	17.88	14.83 <sup>6</sup>	15.10	16.64	17.49	16.45
22 Verizon North/Verizon South (GTIL + GLIL = GAIL)		34.90	25.48	23.11	23.29	21.99	21.54	23.67	23.90
23 Verizon Northwest Inc. (Idaho - GTID)		68.31	47.61	43.93	34.53	28.20	33.01	38.74	34.17
24 Verizon Northwest Inc. (Oregon - GTOR)		29.30	29.05	32.43	25.44	26.28	26.10	31.69	30.95
25 Verizon Northwest Inc. (Washington - COWA)		47.16	39.13	33.53	30.44	36.20	31.57	40.06	39.49
26 Verizon Northwest Inc. (Washington - GTWA)		40.45	40.04	33.22	33.91	29.82	28.97	34.03	33.26
27 Verizon Northwest Inc. (West Coast CA - GNCA)		(7.20)	(1.59)	(33.59)	(9.44)	(13.80)	(5.17)	1.91	(8.35)
28 Verizon South Inc. (North Carolina - GTNC)		32.74	29.37	(27.32)	17.52	16.74	23.45	30.08	26.44
29 Verizon South Inc. (N. Carolina - CONC)		32.13	25.23	26.27	10.10	14.77	21.97	22.17	17.75
30 Verizon South Inc. (GTSC + COSC = GTST)		20.34	34.45	26.00	39.63	28.19	29.82	32.44	31.19
Verizon South Inc. (Alabama - GTAL)								24.02	20.24
Verizon South Inc. (Kentucky - COKY)								30.95	20.60
Verizon South Inc. (Kentucky - GTKY)								27.21	25.07
31 Verizon South Inc. (Virginia - COVA)		52.93	50.02	46.88	33.50	39.52	40.41	40.69	40.85
32 Verizon South Inc. (Virginia - GTVA)		49.72	13.94	19.98	24.17	(22.01)	1.76	9.53	6.62
33 GTE Southwest Inc. dba Verizon Southwest (Texas - COTX)		18.13	13.33	11.09	11.23	10.05	12.46	11.9	12.17
34 GTE Southwest Inc. dba Verizon Southwest (Texas - GTTX)		21.36	16.33	18.38	18.21	18.74	20.47	24.35	21.65
GTE Midwest Inc. (Missouri - COMO + COCM + COEM =COMT)								20.33	17.06
GTE Midwest Inc. (Missouri - GTMO)								23.92	19.15
GTE Systems of The South (Alabama - COAL)								15.77	14.93
<b>Embarq</b>									
35 Central Telephone Company - Nevada Division	59.46 %	47.08 %	53.49 % <sup>8</sup>	53.49 % <sup>8</sup>	45.80 %	43.37 %	34.16 %	23.80 %	19.61 %
36 Embarq - Florida Incorporated	31.46	33.54	40.43 <sup>8</sup>	40.43 <sup>8</sup>	43.03	40.98 <sup>6</sup>	35.54	29.41	25.89
37 Embarq Local Telephone Cos. - Eastern (NJ & PA)	53.22	47.02	50.74 <sup>8</sup>	50.74 <sup>8</sup>	56.61	55.14 <sup>6</sup>	45.38	37.78	25.62
38 Embarq Local Telephone Cos. - Midwest (MO, KS, MN, NE, WY, TX)	28.22	25.15	30.84 <sup>8</sup>	30.84 <sup>8</sup>	32.36	29.17 <sup>6</sup>	25.24	18.89	18.88
39 Embarq Local Telephone Cos. - North Carolina	34.06	34.94	46.08 <sup>8</sup>	46.08 <sup>8</sup>	50.82	51.62 <sup>6</sup>	45.89	36.64	22.23
40 Embarq Local Telephone Cos. - Northwest (OR & WA)	32.21	27.39	32.06 <sup>8</sup>	32.06 <sup>8</sup>	33.80	23.90 <sup>6</sup>	33.51	34.62	32.77
41 Embarq Local Telephone Cos. - Southeast (TN, VA & SC)	37.57	34.91	40.98 <sup>8</sup>	40.98 <sup>8</sup>	38.35	36.14 <sup>6</sup>	34.34	33.76	23.32
42 United Telephone Co. of Indiana, Inc.	55.12	58.90	64.24 <sup>8</sup>	64.24 <sup>8</sup>	71.95	68.80 <sup>6</sup>	46.47	41.75	38.21
43 United Telephone Co. of Ohio	60.45	53.29	50.39 <sup>8</sup>	50.39 <sup>8</sup>	46.30	39.01 <sup>6</sup>	31.50	30.89	20.03

**Table 4.1**  
**Interstate Rate of Return Summary \***  
**Years 2000 through 2008**  
**Price-Cap Companies Reporting FCC Form 492A**  
**(Final Reports for 2000 Through 2007 and Initial Report for 2008) <sup>1</sup>**

Reporting Entity	2008	2007	2006	2005	2004	2003	2002	2001	2000
<b>All Other Companies</b>									
44 CenturyTel of Belle-Hermann/So Missouri/Sw Missouri (CNMO)	23.24	17.20	26.29	30.75	22.94	14.53	4.69 <sup>2</sup>		
46 CenturyTel of Northern Alabama (CNAN)	42.67	42.23	44.51	26.77	11.97	8.23	7.49 <sup>3</sup>		
47 CenturyTel of Southern Alabama (CNAS)	43.83	41.26	39.47	32.36	23.21	24.13	15.78 <sup>3</sup>		
48 Cincinnati Bell Telephone Company	72.35	56.54	47.98	53.10	33.71 <sup>6</sup>	32.48	28.64 <sup>4</sup>	30.09	28.95
49 Citizens Comms Cos. dba Citizens Comms FCC Tariff 1 (CTC1)	35.24	37.90	45.66	41.31	34.99 <sup>6</sup>	24.40	19.27	15.73	19.68
50 Citizens Comms Cos. dba Citizens Comms FCC Tariff 2 (CTC2)	66.66	63.41	59.07	48.43	37.75 <sup>6</sup>	16.14	20.67	17.30	24.05
51 Citizens Comms Cos. dba Citizens Comms FCC Tariff 3 (CTC3)	19.78	15.77	23.46	22.00	12.19 <sup>6</sup>	10.40	8.94	4.52	16.12
52 Citizens Comms Cos. dba Citizens Comms FCC Tariff 4 (CTC4)	57.15	57.25	56.69	57.95	42.79 <sup>6</sup>	35.38	23.31	13.08	30.94
53 Citizens Telecommunications Cos. (CTC5)	10.76					40.37	4.90	0.86	(11.23)
54 Consolidated Communications of Fort Bend Company	15.45								
55 Consolidated Communications of Texas Company	25.09								
56 Frontier Telephone of Rochester	51.98	10.84	18.21	11.32	55.89 <sup>6</sup>	10.67	11.47	12.32	18.91
57 Frontier Tier 2 Concurring Companies	35.45	48.89	51.56	59.64	11.45 <sup>6</sup>	38.49	33.34	38.12	38.95
58 Frontier Comms of Minnesota & Frontier Comms of Iowa	16.31	33.41	34.90	47.18	33.67 <sup>6</sup>	32.16	31.15	25.24	33.16
59 Hawaiian Telecom	23.43	21.43	22.41	21.88 <sup>10</sup>	9.44 <sup>7</sup>	16.96	15.30	16.72	17.87
60 Illinois Consolidated Telephone Company	38.89								
61 Iowa Telecom Service Group	35.15	28.05	25.51	19.36 <sup>10</sup>	17.30 <sup>6</sup>	17.58 <sup>5</sup>	14.26 <sup>4</sup>	13.07	
62 Iowa Telecom Systems Service Group		17.19	15.20	19.14 <sup>10</sup>	20.16	23.97 <sup>5</sup>	20.47 <sup>4</sup>	18.45	
63 Micronesian Telecommunications Corp.	51.51	51.05	45.48	43.52	43.52 <sup>6,7</sup>	33.91	32.75	21.83	23.58
<b>Windstream</b>									
64 Georgia Properties	25.88								
65 Oklahoma Properties	41.37								
66 Texas Windstream, Inc	19.51								
67 Valor Oklahoma	17.69	30.33	(1.34) <sup>9</sup>	19.38 <sup>10</sup>	15.29 <sup>6</sup>	8.69	9.31	11.65	11.22
68 Valor Texas	28.12	24.03	(1.13) <sup>9</sup>	18.08 <sup>10</sup>	13.47 <sup>6</sup>	15.21	10.66	5.70	5.24
69 Valor New Mexico #1	30.73	22.84	11.60 <sup>9</sup>	28.25 <sup>10</sup>	22.96 <sup>6</sup>	18.45	16.86	11.45	20.67
70 Valor New Mexico #2	25.72	21.64	5.54 <sup>9</sup>	17.77 <sup>10</sup>	21.16 <sup>6</sup>	20.41	15.88	8.39	13.35
71 Windstream Alabama, LLC	31.19								
72 Windstream Arkansas, LLC	24.61								
73 Windstream Concord, Inc	39.50								
74 Windstream Florida, Inc	29.08								
75 Windstream Kentucky East, LLC Lexington	99.56	61.07	30.15 <sup>9</sup>	38.10 <sup>10</sup>	33.40 <sup>6</sup>	26.75	27.78	12.57	12.99
76 Windstream Kentucky East, LLC London	31.26	22.87	14.12 <sup>9</sup>	23.37 <sup>10</sup>	25.50 <sup>6</sup>	26.26	28.76		
77 Windstream Kentucky West, LLC	35.05								
78 Windstream Kerrville	41.96								
79 Windstream Missouri, Inc	24.78								
80 Windstream Mississippi, LLC	81.28								
81 Windstream Nebraska	53.55	24.89	23.87 <sup>9</sup>	28.40 <sup>10</sup>	14.25 <sup>6</sup>	13.43	12.20	12.57	12.99
82 Windstream New York, Inc	56.59								
83 Windstream North Carolina, LLC	11.41								
84 Windstream Ohio	17.73								
85 Windstream Pennsylvania, LLC	16.57								
86 Windstream South Carolina, LLC	28.99								
87 Windstream Standard, LLC	33.33								
88 Windstream Sugar Land	31.79								
89 Windstream Western Reserve	25.25								
Maximum Rate of Return <sup>11</sup>	99.56 %	85.67 %	64.24 %	71.84 %	68.80 %	59.89 %	54.09 %	53.67 %	47.67 %
Minimum Rate of Return <sup>11</sup>	10.76	(7.20)	(1.59)	(33.60)	(9.44)	(17.50)	(5.17)	0.86	(11.23)
Weighted Arithmetic Mean <sup>11</sup>	32.16	30.65	25.51	23.48	20.44	18.06	17.69	19.62	18.04
Standard Deviation <sup>11</sup>	15.51	12.87	11.58	9.13	9.00	8.63	5.69	5.80	5.17

\* The carriers' interstate rates of return reported on the FCC Form 492A may not agree with the interstate rates of return reported by the carriers on other Commission reports. For example, price-cap carriers report interstate rates of return on the Commission's Automated Reporting Management Information System's (ARMIS) 43-01 report. The 43-01 Report interstate rates of return also includes revenues and costs for non-price-cap services. See footnote 11 for additional information regarding the 43-01 Report.

<sup>1</sup> For years 1991 - 1999, see Industry Analysis Division, Common Carrier Bureau, *Trends in Telephone Service* (August 2001).

<sup>2</sup> For the reporting period 9/1/02 - 12/31/02.

<sup>3</sup> For the reporting period 7/1/02 - 12/31/02.

<sup>4</sup> For final 2002, there were no changes to the preliminary.

<sup>5</sup> For final 2003, there were no changes to the preliminary.

<sup>6</sup> For final 2004, there were no changes to the preliminary.

<sup>7</sup> Verizon sold these entities in 2005.

<sup>8</sup> In December 2004 Sprint and Nextel merged and in February 2006 the Local Telecommunication Division was named EMBARQ.

<sup>9</sup> Windstream formed through spinoff of Alltel's landline business and merger with Valor Communications.

<sup>10</sup> For final 2005, there were no changes to the preliminary.

<sup>11</sup> The Commission's *MO&O in Petition of AT&T For Forbearance*, WC Docket No. 07-21, et al, 23 FCC Rcd 7302 (2008), granted AT&T conditional forbearance from filing FCC 492A, the Rate of Return Monitoring Report, subject to approval of a compliance plan. On December 12, 2008, the Commission extended the same relief, subject to the same conditions, to Verizon and Qwest. On December 31, 2008, in a Public Notice, the Wireline Competition Bureau approved the three plans effective immediately. Therefore, the 2007 preliminary reported data will also be their final data. AT&T, Verizon, and Qwest entities will no longer file Report Form 492A for year 2008 and subsequent years.

## 5 Employment and Labor Productivity

The Bureau of Labor Statistics (BLS) publishes monthly data regarding the total number of employed workers in the communications industry. Specifically, BLS compiles employment statistics for the entire telephone communications industry.<sup>1</sup> These are classified according to the North American Industry Classification System (NAICS).

NAICS is a collaborative effort between the United States, Canada, and Mexico to provide comparability in statistics about business activity across North America. The telecommunications industry subsector (517) can be found in the 2007 NAICS *Information Sector – 50*.<sup>2</sup> The industry groups under telecommunications are as follows: wired telecommunications carriers (5171)<sup>3</sup>; wireless telecommunications carriers (5172)<sup>4</sup>; telecommunications resellers (517911)<sup>5</sup>; and other telecommunications (5179). Further information on NAICS can be found on the Bureau of Labor Statistics web site at <http://www.bls.gov/ces/cesnaics07.htm>.

Table 5.1 and the associated graph show the information compiled by BLS for the annual average employment figures for the telecommunications industry – NAICS 517, as well as the industry distributions for wired telecommunications carriers – NAICS 5171, wireless telecommunications carriers – NAICS 5172, telecommunications resellers – NAICS 517911, and other telecommunications – NAICS 5179. Monthly employment data for these categories from 1990 to the present can be found on the BLS web site at [www.bls.gov](http://www.bls.gov).

Table 5.2 and the associated graph show the information compiled by BLS for the labor productivity index for nonfarm business – NAICS 8500, for wired telecommunications carriers – NAICS 5171, and for wireless telecommunications carriers – NAICS 5172. The BLS index of labor productivity relates output to the employee hours expended in producing that output.

---

<sup>1</sup> BLS used to compile data based on the Standard Industrial Classification (SIC) system. With the May 2003 data, the employment series underwent a complete industry reclassification, changing from the 1987 SIC system to the 2002 NAICS. Employment statistics from 1951 to 2002 based on the SIC system can be found in Table 5.1 of the Industry Analysis and Technology Division, Wireline Competition Bureau, *Trends in Telephone Service* (August 2003). The Labor Productivity Index for the telephone communications industry for the years 1951 to 2002 based on the SIC system can also be found in the August 2003 edition of *Trends* in Table 5.2.

<sup>2</sup> On February 1, 2008, the CES National Nonfarm Payroll series was updated to the 2007 NAICS from the 2002 NAICS basis. The conversion to NAICS 2007 resulted in minor definitional changes within manufacturing, telecommunications, financial activities, and professional and technical services. Several industry titles and descriptions were updated. The most significant revisions are in the Information sector, particularly within the telecommunications area.

<sup>3</sup> Wired telecommunications carriers (5171) now includes Cable and Other Program Distribution (5175).

<sup>4</sup> Wireless telecommunications carriers (5172) now includes Cellular and Other Wireless Carriers (517212).

<sup>5</sup> Telecommunications resellers changed their series from (5173) to (517911).

Table 5.3 presents estimates of the number of telecommunications service providers that the Small Business Administration's Office of Size Standards defines as small businesses (i.e., 1,500 or fewer employees, including all affiliates).

**Table 5.1**  
**Annual Average Number of Employees in the Telecommunications Industry**  
**(In Thousands)**

Year	Telecom Carriers <sup>1</sup> 517	Wired Telecom Carriers <sup>2</sup> 5171	Wireless Telecom Carriers <sup>3</sup> 5172	Telecom Resellers 517911	Other Telecom <sup>4</sup> 5179
1990	1,008.5	759.5	35.8	179.5	33.7
1991	999.9	749.9	41.8	178.1	30.1
1992	972.9	725.8	47.8	172.6	26.7
1993	969.5	716.5	56.3	170.5	26.2
1994	989.5	719.2	71.7	171.8	26.8
1995	1,009.3	717.6	90.3	171.2	30.2
1996	1,038.1	722.2	110.1	171.6	34.2
1997	1,108.0	755.7	132.1	181.3	38.9
1998	1,167.4	789.8	144.2	188.7	44.7
1999	1,270.8	853.2	159.9	200.2	57.5
2000	1,396.6	921.8	185.6	213.6	75.6
2001	1,423.9	933.8	201.4	214.1	74.6
2002	1,280.9	837.1	197.3	179.5	67.0
2003	1,166.8	761.8	189.9	154.9	60.2
2004	1,115.1	720.4	189.7	147.3	57.7
2005	1,071.3	689.6	191.3	135.1	55.3
2006	1,047.6	669.2	200.2	125.6	52.6
2007	1,030.6	664.5	203.4	117.2	45.5
2008	1,021.4	666.1	202.7	109.3	43.3

<sup>1</sup> Figures may not add up due to rounding.

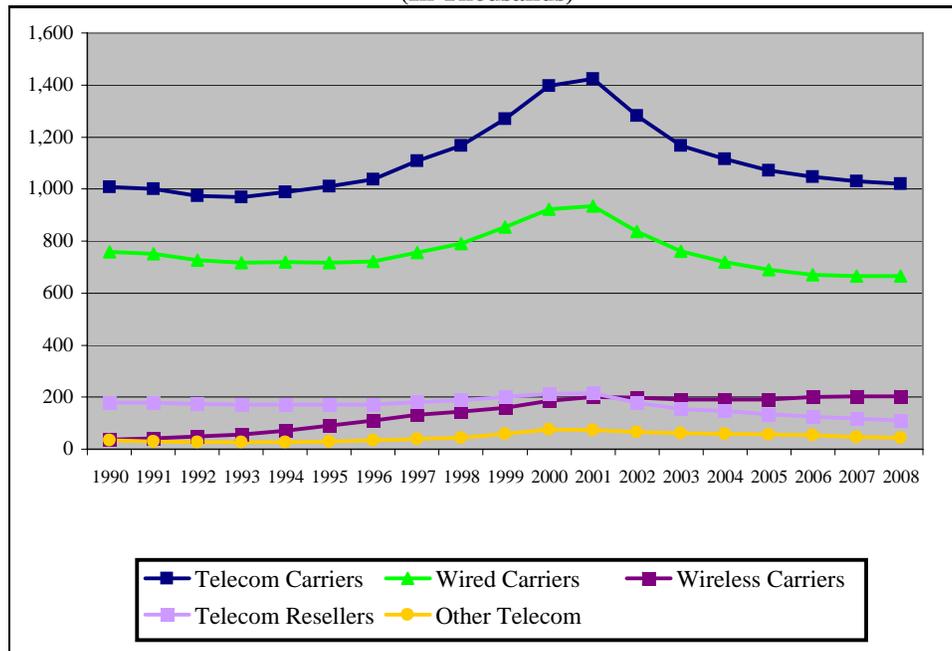
<sup>2</sup> Cable and Other Program Distribution (formerly 5175) is no longer reported separately and is reported in Wired Telecom Carriers (5171).

<sup>3</sup> Cellular and Other Wireless Carriers (formerly 517212) is no longer reported separately and is reported in Wireless Telecom Carriers (5172).

<sup>4</sup> Totals for Other Telecom (5179) exclude data reported for Telecom Resellers (517911).

Source: Bureau of Labor Statistics.

**Chart 5.1**  
**Annual Average Number of Employees in the Telecommunications Industry**  
**(In Thousands)**

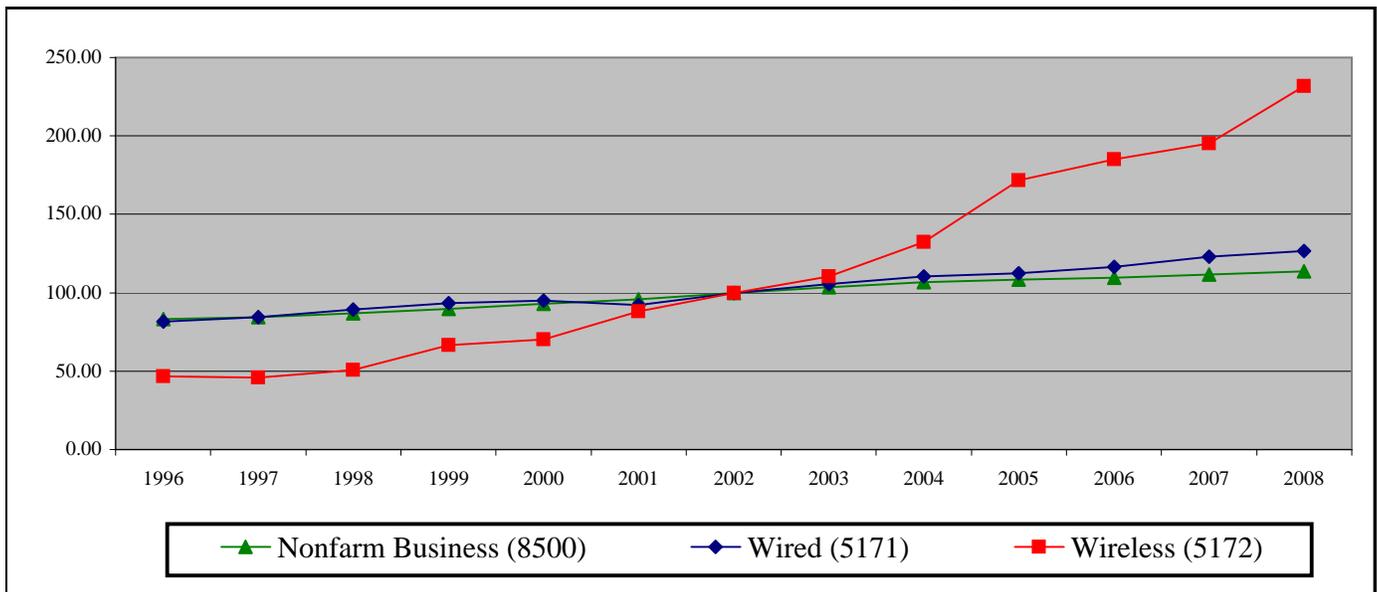


**Table 5.2**  
**Labor Productivity Index for Nonfarm Business and the Wired and Wireless**  
**Telecommunications Industry Measured in Output per Hour (OPH)**  
**(Base Year 2002 = 100)**

<b>Year</b>	<b>Nonfarm Business (NAICS 8500)</b>	<b>Wired Carriers (NAICS 5171)</b>	<b>Wireless Carriers (NAICS 5172)</b>
1996	83.22	81.54	46.64
1997	84.50	84.55	45.88
1998	86.98	89.13	50.69
1999	89.87	93.26	66.63
2000	92.92	94.89	70.09
2001	95.64	92.00	88.04
2002	100.00	100.00	100.00
2003	103.66	105.72	110.51
2004	106.59	110.40	132.28
2005	108.37	112.33	171.74
2006	109.40	116.64	185.09
2007	111.41	122.77	195.15
2008	113.69	126.72	231.89

Source: Bureau of Labor Statistics.

**Chart 5.2**  
**Nonfarm Business, Wired, and Wireless Telecommunications Carriers**  
**(NAICS 8500, 5171, and 5172) Labor Productivity Index**



**Table 5.3**  
**Number of Telecommunications Service Providers by Size of Business**  
**(As of October 13, 2008)**

Type of Provider	Number of FCC Form 499-A Filers <sup>1</sup>	Filers that in Combination with Affiliates Have	
		1,500 or Fewer Employees <sup>2</sup>	More than 1,500 Employees <sup>2</sup>
Incumbent Local Exchange Carriers (ILECs)	1,307	1,006	301
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	1,442	1,256	186
Local Resellers	213	211	2
Shared-Tenant Service Providers	17	17	0
Other Local Service Providers	72	70	2
Total Local Competitors	1,744	1,554	190
Total Fixed Local Service Providers	3,051	2,560	491
Payphone Service Providers	535	531	4
Private Service Providers	137	125	12
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers	413	261	152
Paging and Messaging Service Providers	291	289	2
Specialized Mobile Radio (SMR) Dispatch	183	183	0
Wireless Data and Other Mobile Service Providers	83	82	1
Total Wireless Service Providers	970	815	155
Interexchange Carriers (IXCs)	359	317	42
Operator Service Providers (OSPs)	33	31	2
Prepaid Calling Card Providers	193	193	0
Satellite Service Providers	50	44	6
Toll Resellers	881	857	24
Other Toll Carriers	284	279	5
Total Toll Service Providers	1,800	1,721	79
All Filers	6,493	5,752	741

<b>Holding Company Analysis</b>			
Filers without Affiliates:			
Holding Company Level	3,682	3,661	21
Filer Level	3,682	3,661	21
Filers with Affiliates <sup>3</sup> :			
Holding Company Level	806	759	47
Filer Level	2,811	2,091	720
Total, Holding Company Level	4,488	4,420	68
Total, Filer Level	6,493	5,752	741

Note: Estimates are based on gross revenue data filed on the 2007 FCC Form 499-A worksheets, and public employment data from ARMIS and Securities and Exchange Commission filings. Filers were considered affiliated based on information from their FCC Form 499-A filings. These estimates do not reflect affiliates that do not file the FCC Form 499-A, such as firms that are not in the telecommunications business or firms that operate solely outside the United States.

<sup>1</sup> While FCC Form 499-A filings are not publicly available, filer registration information is published by the Industry Analysis and Technology Division (IATD) in the *Telecommunications Provider Locator* (January 2010), which can be accessed at <http://www.fcc.gov/web/iatd/locator.html>. This same information is searchable online at <http://fjallfoss.fcc.gov/cgb/form499/499a.cfm>.

<sup>2</sup> Employee counts are estimated at the holding company level, yet presented at the filer level. If our analysis indicates that, at the holding company level, a group of filers together employs more than 1,500 people, then each of the individual filers that comprise the holding company are entered in the column labeled as such. Therefore, our estimates **do not imply** that each or any of the individual filers alone employs more than 1,500 persons.

<sup>3</sup> In some cases, affiliated companies may file a single FCC Form 499A for all operations. Such consolidated filings are included in this category.

Source: FCC Form 499-A filings and IATD staff estimates.

## 6 International Telephone Service

International telecommunications has become an increasingly important segment of the telecommunications market. International telephone calling -- propelled by technological innovation, lower prices and increased international trade and travel -- has skyrocketed. In 1980, customers in the United States were billed for almost 2 billion minutes of calls to international points. This figure increased to 8 billion in 1990, 30 billion in 2000, and 75 billion in 2008. Americans spent \$7.3 billion on international calls in 2008. On average, carriers billed 10 cents per minute for international calls in 2008, a decline of 93% since 1980, and 80% since 2000. International private line revenues increased through 2000 and then declined significantly through 2003. These trends are shown in Table 6.1. Chart 6.1 shows the trends in billed revenues per minute and per call since 1980.

U.S. and foreign carriers compensate each other when one carries traffic that the other bills. Because Americans place more international calls than they receive, and because U.S. carriers payout far more per minute of outbound traffic than they receive per minute of inbound traffic, U.S. carriers make substantial net payments to foreign carriers -- \$4.0 billion in 2008. The net payout has declined between 1996 and 2003 because falling compensation rates more than offset the growth in traffic. Trends in settlement payments are shown in Table 6.2.

International traffic data are available on a country-by-country basis. Table 6.3 summarizes traffic by region of the world. Five markets -- Canada, Mexico, the Philippines, India and the United Kingdom -- currently account for about 47% of the international billed minutes in the United States in 2008. Chart 6.2 shows the percentage breakout for the five markets.

Since 1985, when MCI began to compete with AT&T for international calls, numerous carriers have begun to provide international service. In 2008, 77 carriers provided international telecommunications service between the United States and international points by using their own facilities or lines leased from other carriers. These carriers provided \$6.5 billion of international telephone service, \$817 million of international private line and other miscellaneous international services. Table 6.4 shows revenues for the 46 companies that did not request confidential treatment for 2008 filings.

Nine hundred and seventy seven carriers reported revenues for international message telephone service that they provided on a pure resale basis. These carriers reported \$7.0 billion of pure resale revenues in 2008. Table 6.5 shows pure resale revenues for the carriers with the highest pure resale messages, minutes and revenues.

The data compiled in Tables 6.1 - 6.5 are filed pursuant to section 43.61 of the Commission's rules. Preliminary data are filed July 31st of each year and final data are filed October 31st. Additional information can be found in a number of international reports on the Internet on the Wireline Competition Bureau Statistical Reports web page at [www.fcc.gov/web/stats](http://www.fcc.gov/web/stats).

**Table 6.1**  
**International Service from the United States**  
**(Minute, Message, and Revenue Amounts Shown in Millions)**

	Telephone Service					Other Services			
	Minutes	Messages	Billed Revenues			Billed Revenues			
			Total End-User <sup>1</sup>	Per Minute <sup>2</sup>	Per Call	Telex	Telegraph	Private Line <sup>3</sup>	Misc. Services <sup>3</sup>
1980	1,569	199	\$2,097	\$1.34	\$10.53	\$325	\$63	\$115	
1981	1,857	233	2,239	1.21	9.61	350	62	126	
1982	2,187	274	2,382	1.09	8.70	363	56	138	
1983	2,650	322	2,876	1.09	8.92	379	54	154	
1984	3,037	367	3,197	1.05	8.71	394	46	158	
1985	3,446	411	3,487	1.01	8.49	415	45	172	
1986	4,126	482	4,004	0.97	8.30	390	42	175	
1987	4,819	570	4,751	0.99	8.33	360	35	191	
1988	5,679	687	5,806	1.02	8.45	310	30	194	
1989	6,751	835	6,912	1.02	8.28	243	27	208	
1990	8,030	984	8,059	1.00	8.19	196	24	201	
1991	9,072	1,384	9,263	1.02	6.69	201	15	309	\$23
1992	10,294	1,663	10,382	1.01	6.25	156	16	323	24
1993	11,513	1,945	11,564	1.00	5.95	136	12	366	23
1994	13,616	2,347	12,543	0.92	5.35	123	12	441	25
1995	15,889	2,830	14,335	0.90	5.07	120	6	514	48
1996	19,325	3,520	14,598	0.76	4.15	119	5	661	26
1997	22,753	4,259	15,662	0.69	3.68	110	4	851	28
1998	24,250	4,477	14,726	0.61	3.29	64	2	921	36
1999	28,515	5,305	14,980	0.53	2.82	57	2	1,216	31
2000	30,135	5,742	14,909	0.49	2.60	33	1	1,480	251
2001	33,287	6,265	11,386	0.34	1.82	10	*	1,419	199
2002	35,064	5,926	9,956	0.28	1.64	**	**	988	113
2003	42,664	7,350	9,294	0.21	1.22	**	**	899 <sup>3</sup>	
2004	63,553	10,895	9,176	0.14	0.84	**	**	711 <sup>3</sup>	
2005	70,064	13,134	7,975	0.11	0.61	**	**	738 <sup>3</sup>	
2006	72,440	13,673	7,907	0.11	0.58	**	**	792 <sup>3</sup>	
2007	69,975	13,695	7,132	0.10	0.52	**	**	717 <sup>3</sup>	
2008	74,934	15,028	7,305	0.10	0.49	**	**	817 <sup>3</sup>	

Note: Data represent traffic and circuits from all U.S. points. Data for some prior years have been revised.

\* Denotes revenues less than \$500,000.

\*\* Data not filed.

<sup>1</sup> Billed revenues in Table 6.1 differ from billed revenues in Table 6.3. The amounts shown here represent charges to end-user customers and equal the amounts billed by underlying carriers plus estimated reseller markups. The amounts shown in Table 6.1 are the amounts reported by the underlying carriers that carried the traffic to foreign destinations.

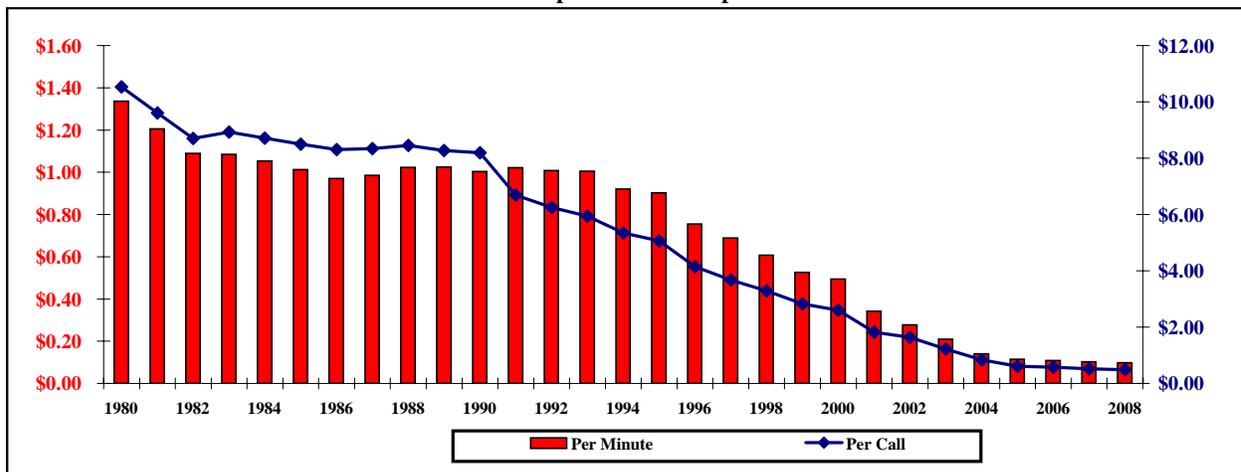
<sup>2</sup> Billed revenue per minute for international service differs in Table 6.1 and Table 13.3. Data in Table 6.1 are calculated using all U.S. billed minutes and revenues. Data for Table 13.3 represent charges for most U.S. billed calls that originate or terminate in the United States. International-to-international revenues and reorigination, country-beyond and country-direct minutes are not included in that table.

<sup>3</sup> Starting in 2003, private line and miscellaneous service revenue are combined because separate totals are not published including both publically filed amounts and amounts withheld to preserve confidential treatment.

Source:

Data through 2004 from International Bureau, *International Telecommunications Data* (March 2006). Data starting 2005 are from International Bureau, International Telecommunications Data.

**Chart 6.1**  
**Billed Revenues per Minute and per Call**



**Table 6.2**  
**International Telephone Service Settlements**  
**(Revenue Amounts Shown in Millions)**

	End-User Billed Revenues 1/	Owed to Foreign Carriers	Retained End-User Revenues 1/	Due from Foreign Carriers 2/	Net Settlements	Net End-User Revenues 1/	Average per Minute		
							Settlement Owed to Foreign Carriers for U.S. Billed Calls	Settlement Due from Foreign Carriers for Foreign Billed Calls	U.S. Carrier Net End-User Revenues All Traffic 3/
1980	\$2,097	\$1,063	\$1,034	\$716	(\$347)	\$1,750	\$0.68	\$0.62	\$0.64
1981	2,239	1,330	910	799	(531)	1,708	0.72	0.56	0.52
1982	2,382	1,674	708	961	(712)	1,670	0.77	0.60	0.44
1983	2,876	2,036	841	1,086	(950)	1,926	0.77	0.60	0.43
1984	3,197	2,269	928	1,066	(1,203)	1,994	0.75	0.54	0.40
1985	3,487	2,398	1,089	1,243	(1,155)	2,332	0.70	0.55	0.41
1986	4,004	2,865	1,140	1,396	(1,469)	2,536	0.69	0.56	0.38
1987	4,751	3,423	1,328	1,671	(1,752)	2,999	0.71	0.59	0.39
1988	5,806	4,039	1,767	1,906	(2,133)	3,674	0.71	0.59	0.41
1989	6,912	4,735	2,177	2,213	(2,523)	4,390	0.70	0.58	0.42
1990	8,059	5,297	2,762	2,426	(2,871)	5,188	0.66	0.56	0.42
1991	9,263	5,852	3,411	2,536	(3,317)	5,946	0.65	0.51	0.42
1992	10,382	6,008	4,375	2,650	(3,357)	7,025	0.58	0.46	0.44
1993	11,564	6,372	5,192	2,667	(3,705)	7,859	0.55	0.43	0.44
1994	12,543	7,010	5,533	2,719	(4,291)	8,252	0.51	0.39	0.40
1995	14,335	7,569	6,766	2,631	(4,938)	9,397	0.48	0.35	0.40
1996	14,598	8,252	6,345	2,594	(5,658)	8,939	0.43	0.30	0.32
1997	15,661	8,031	7,630	2,602	(5,429)	10,232	0.35	0.27	0.31
1998	14,726	7,022	7,704	2,538	(4,484)	10,242	0.29	0.21	0.28
1999	14,980	6,383	8,597	1,782	(4,601)	10,379	0.22	0.15	0.26
2000	14,909	5,536	9,373	1,609	(3,927)	10,982	0.18	0.11	0.25
2001	11,380	4,526	6,854	1,181	(3,346)	8,034	0.14	0.08	0.17
2002	9,956	3,733	6,223	892	(2,842)	7,114	0.11	0.05	0.14
2003	8,944	3,649	5,295	873	(2,777)	6,167	0.09	0.04	0.10
2004	9,188	4,623	4,530	1,016	(3,642)	5,546	0.07	0.04	0.07
2005	7,975	4,098	3,877	637	(3,461)	4,514	0.06	0.03	0.05
2006	7,907	4,146	3,761	517	(3,630)	4,277	0.06	0.02	0.05
2007	7,132	4,029	3,103	353	(3,677)	3,455	0.06	0.01	0.04
2008	7,305	4,327	2,977	343	(3,985)	3,320	0.06	0.01	0.04

Note: Data represent traffic to and from all U.S. points.

1/ Billed revenues in Table 6.2 differ from billed revenues in Table 6.3. The amounts shown here represent charges to end-user customers and equal the amounts billed by underlying carriers plus estimated markups, where service was provided through resellers. The amounts shown in Table 6.3 are the amounts reported by the underlying carriers. Similar differences exist for retained end-user and net revenues.

2/ Beginning in 1991, includes net settlement receipts for transiting traffic.

3/ Beginning in 1991, includes transiting traffic.

Source: Data through 2004 from International Bureau, *Trends in the International Telecommunications Industry* (September 2005). Data after 2004 are from International Bureau, *International Telecommunications Data*.

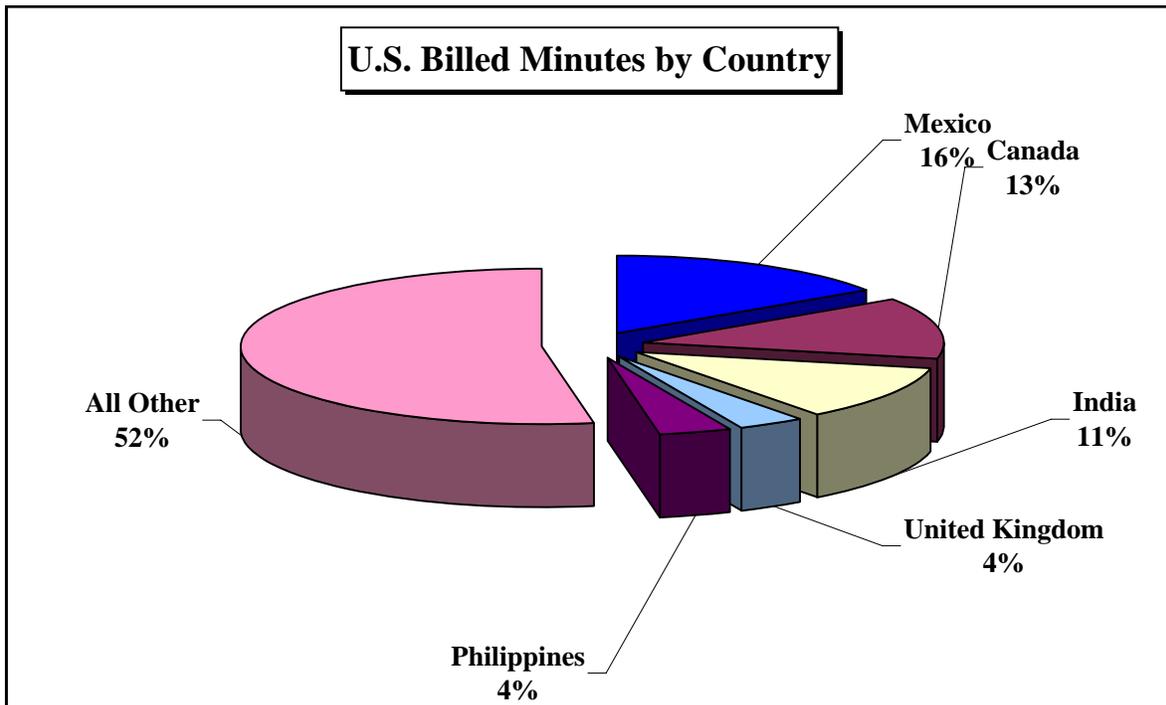
**Table 6.3**  
**International Message Telephone Service for 2008**  
**(Figures Rounded to the Nearest Million)**

Region of the World <sup>1</sup>	Traffic Billed in the United States					Traffic Billed in Foreign Countries				Total U.S. Carrier Retained Revenues
	Number of Messages	Number of Minutes	U.S. Carrier Revenues	Owed to Foreign Carriers	Retained Revenues	Originating or Terminating in the United States		Transiting	Retained Revenues	
						Number of Messages	Number of Minutes			Due from Foreign Carriers
Africa	786	3,452	\$530	\$451	\$79	131	500	\$16	\$31	\$126
Asia	4,064	18,502	1,409	980	429	907	4,195	91	70	589
Caribbean	847	4,453	683	610	73	298	957	16	14	103
Eastern Europe	549	2,489	246	173	74	42	221	4	5	83
Middle East	509	2,076	265	185	80	145	679	11	8	99
North and Central America	4,084	25,373	1,786	1,045	741	3,868	13,340	103	59	903
Oceania	392	1,199	109	54	54	103	592	7	4	66
Other Regions	2	2	4	2	2	*	*	*	*	2
South America	1,176	8,045	624	444	180	161	936	24	60	264
Western Europe	2,617	9,316	797	381	416	1,256	4,979	71	405	892
Total for Foreign Points	15,008	74,801	6,453	4,326	2,127	6,898	26,334	342	656	3,125
Total for U.S. Points	21	133	6	2	4	14	66	1	*	5
Total for All International Points	15,028	74,934	\$6,459	\$4,327	\$2,131	6,911	26,400	\$343	\$656	\$3,130

\* Denotes values that are less than half a million.

<sup>1</sup> The region totals include all international traffic reported by carriers serving domestic U.S. points including Guam and the U.S. Virgin Islands. Most traffic between Guam, the U.S. Virgin Islands, American Samoa and Northern Mariana Islands and other U.S. points are shown separately as the total for U.S. points, and also are included in the total for all international points. The total for all international points also includes all traffic originating in American Samoa and the Northern Mariana Islands, which is excluded from the region totals.

**Chart 6.2**



Source: International Bureau, *International Telecommunications Data*.

**Table 6.4**  
**U.S. Billed Revenues of Facilities-Based and Facilities-Resale Carriers in 2008 1/**  
**(Revenue Amounts Shown in Millions)**

	International Service			Total International Billed Revenues
	Telephone	Private Line	Miscellaneous	
ABS-CBN Telecom North America, Inc.	2			2
Bharti Airtel Limited	30			30
BringCom International, LLC			4	4
Cable & Wireless Americas Operations, Inc.		4		4
Carrier PB Telco, Inc.	13			13
Centennial Puerto Rico Operations Corp.	3			3
China Unicom USA Corp.	7	*		7
Chunghwa Telecom Global, Inc.		1		1
Cincinnati Bell, Inc.		*		*
Colt Telecommunications		4		4
Columbus Networks USA, Inc.		1		1
EKU Solutions, LLC		*		*
EPM Telecomunicaciones S.A. E.S.P.	107	5		111
France Telecom Long Distance USA, LLC	9		*	9
Global Caribbean Fiber		90		90
Global Crossing North America, Inc.		15		15
Global Telecom and Technology Americas, Inc		2		2
Golden Holdings, Inc.		*		*
Intelsat USA License Corp.		*		*
KDDI America, Inc.	*	10		10
KT America, Inc.	1			1
Level 3 Communications, LLC		30		30
New Edge Networks		*		*
NTT America, Inc.		7		7
Pacifica Telecom Inc. (PTI)	11	1		12
Philippine Long Distance Telephone Co., Ltd.		2	*	2
PREPA.Net International Wholesale Transport		*		*
Qwest Services Corporation		4		4
Reliance Communications, Inc.	236	10		246
Satellite Communication Systems, Inc.	*	2		2
Sierra USA Communications, Inc.		*		*
Smitcoms, Inc.				
Stratos Holdings, Inc.		2		2
Syniverse Technologies, Inc.		90		90
Telecom Argentina USA, Inc.	6			6
Telecom Colombia USA, Inc.	5			5
Telecom Italia Sparkle of North America, Inc	136			136
Telefonica Larga Distancia, Inc. (TLD)	2	*		2
Telekom Malaysia (USA), Inc.		1		1
Telenor Global Services AS	1			1
Telmex		18		18
Thrane & Thrane Airtime Ltd.	*			*
Tricom USA, Inc.	35			35
Universal Telecom Services, Inc.		*		*
Verizon Communications Inc.	1,111	65		1,176
Viatel Holding (Bermuda) Limited		*	*	*
<b>Total All Carriers 2/</b>	<b>\$6,459</b>	<b>\$363</b>	<b>\$4</b>	<b>\$7,275</b>

\* Represents revenues greater than \$0 but less than \$500,000.

1/ Thirty one filers that requested confidential treatment and are not listed in this table, but their revenues are included in the totals. Data exclude pure resale services. Data do not show settlement receipts for terminating foreign billed traffic.

2/ Revenue totals are for Domestic U.S. points (which include Puerto Rico) and Off-shore U.S. points (which include American Samoa, Guam, the Northern Mariana Islands, and the U.S. Virgin Islands). The totals include \$11 million of revenue for calls between Domestic U.S. points and Off-shore U.S. points and calls between Off-shore U.S. points.

Source: International Bureau, *International Telecommunications Data*.

**Table 6.5**  
**Top Providers of Pure Resale International MTS in 2008**

	Number of Messages (Millions)	Number of Minutes (Millions)	U.S. Carrier Revenues (\$ Millions)	Percent of Total IMTS Resale Revenues
Allcom Distribution Corp. d/b/a Allcom Telecommunications	78	497	\$46	0.66 %
STi Prepaid, LLC	20	84	9	0.13
Verizon Communications, Inc.	33	200	21	0.30
Dollar Phone Corp.	219	319	35	0.50
Locus Telecommunications, Inc	8	65	11	0.15
KDDI Corporation	3	15	8	0.11
Sprint Nextel Corporation	25	252	32	0.45
Network Enhanced Telecom, LLP	4	21	11	0.15
Qwest Communications International, Inc.	3	20	14	0.20
Reliance Communications International, Inc	5	34	8	0.11
Total Call	7	74	9	0.13
Epana Networks, Inc.	69	686	86	1.23
Global Crossing North America, Inc.	18	167	38	0.55
Computer Tel, Inc.	282	1,689	539	7.74
NobelTel, LLC	299	3,354	250	3.59
Level 3 Communications, Inc.	16	92	36	0.52
Logical Telecom, LP	280	3,946	113	1.63
Platinum Equity, LLC	522	2,447	87	1.25
Telmex	34	122	20	0.28
Allcom Distribution Corp. d/b/a Allcom Telecommunications	5	51	16	0.23
Telecom Italia Sparkle of North America, Inc	358	2,355	223	3.20
Cox Communications, Inc.	566	1,846	58	0.83
Embarq Communications, Inc.	337	4,120	247	3.55
Belgacom International Carriers Services S.A	82	1,288	52	0.75
CIMA Telecom, Inc.	10	118	11	0.16
One Phone, Inc.	10	72	9	0.12
Virgin Mobile USA, LP	19	179	19	0.28
NovaTel Ltd., Inc.	304	3,248	136	1.95
PaeTec Corporation	46	541	22	0.32
NetworkIP, LLC	86	581	70	1.01
Auris, LLC	6	63	8	0.11
Gold Line Telemanagement, Inc	72	751	24	0.35
NECC Telecom, Inc.	15	158	31	0.44
Hawaiian Telcom Services Company, Inc	44	143	24	0.34
United States Cellular Corporation	37	348	50	0.72
Citizens Communications Company	36	665	14	0.20
Progress International, LLC	1,459	6,921	134	1.93
Redes Modernas de la Frontera SA de CV	10	100	13	0.18
Telscape Communications, Inc.	79	949	129	1.85
Lunex Telecom, Inc.	865	2,254	198	2.85
Cincinnati Bell, Inc.	591	6,466	465	6.69
Cavalier Telephone Corporation	189	775	41	0.58
Communication Technology, Inc.	32	93	8	0.11
VoIP Tel, L.P	10	344	48	0.69
Alltel Communications, Inc.	7	77	12	0.17
MetroPCS, Inc.	303	1,956	126	1.82
ClearTel Communications, Inc.	9	33	14	0.20
Telekom Malaysia (USA), Inc.	694	2,795	264	3.80
CenturyTel, Inc.	17	87	25	0.36
NOS Communications, Inc.	31	243	9	0.13
Total for 66 Companies Requesting Confidential Treatment	3,544	19,918	2,865	41.18
Total for 861 Companies Not Shown Above 1/	1,262	10,903	283	4.07
Total for all Reporting Carriers	12,393	75,844	\$6,959	100.00 %

1/ Data are consolidated for affiliated carriers. A total of 977 carriers made a total of 1,109 filings.

Source: International Bureau, *International Telecommunications Data*.

## 7 Lines

Within the telephone industry there are several alternative, but closely related, definitions of telephone lines or loops. While these differences often make it difficult to reconcile data from different statistical series, they are not usually large enough to affect comparisons among companies or trends over time. Since 1970, over 90% of households and virtually all businesses have subscribed to telephone service. Until 2000, line growth over time, averaging about 3% per year, has historically reflected growth in the population and the economy. Since then, the number of lines provided by wireline carriers has declined, likely due to some consumers substituting wireless service for wireline service, and some households eliminating second lines when they move from dial-up Internet service to broadband service.

Table 7.1 shows the nation's total number of telephone lines using three alternative measures. The first measure is the number of end-user switched access lines for both incumbent local exchange carriers (LECs) and competitive local exchange carriers (CLECs) as reported to the Commission on the FCC Form 477. These data undercount lines by a small amount because carriers with less than 10,000 lines in a state were not required to file the FCC Form 477 prior to 2005. The second measure is the number of local loops, which is a way of counting lines that is used to determine the amount of high-cost universal service support provided to eligible telecommunications carriers. The number of local loops includes end-user access lines, lines resold to other carriers and UNE loops with switching (UNE-P). This measure excludes CLEC lines provided over their own facilities. The third measure, access lines, represents estimates for the whole incumbent LEC industry based on data filed with the Commission by large incumbent LECs through the Automated Reporting Management Information System (ARMIS). This measure excludes a substantial number of incumbent LEC lines provided to CLECs as UNE-P lines between 2001 and 2007.

Table 7.2 shows the number of local exchange operating areas (study areas – company's operations in one state) and loops in each state, and shows breakdowns by loops for price-cap and average-schedule companies.<sup>1</sup> Table 7.3 shows the number of loops by holding companies, and Chart 7.1 shows the five largest holding companies' share of loops.

Table 7.4 presents estimates of the number of households that have only wireline telephone service versus those households that have only wireless telephone service. The number of households that have only wireline telephone service declined from 27.9 million in the first half of 2007 to 17.5 million households in the second half of 2009. In contrast, wireless only households increased from 15.9 million households in the first half

---

<sup>1</sup> Average schedule companies have been permitted by the Commission to estimate their access settlements and universal service support through the use of average schedules to avoid the difficulties and expenses involved with conducting company-specific cost studies.

of 2007 to 28.7 million in the second half of 2009. The FCC staff estimates are based on the Center for Disease Control and Prevention's National Center for Health Statistics survey, and data from the Census Bureau's Current Population Survey.<sup>2</sup>

Tables 7.5 and 7.6 display payphone line information. Long distance carriers are required to pay payphone owners 49 cents for every completed dial-around call (calls where the consumer chooses the long distance carrier over the payphone's presubscribed long distance carrier).<sup>3</sup> Because of this requirement, several long distance carriers employ the National Payphone Clearinghouse to administer payments on their behalf. On an annual basis, the National Payphone Clearinghouse<sup>4</sup> supplies the FCC with data that allow the number of payphones in each state to be calculated.

Table 7.5 shows the number of payphones owned by LECs and by independent payphone operators in each state. The number of payphones is broken down by whether the payphones are served by an RBOC or by another LEC. Payphones located in RBOC territories but served by a CLEC are accounted for in the RBOC territories columns. Similarly, payphones located in non-RBOC territories (i.e., other incumbent LEC territories) but served by a CLEC are accounted for in the all other LEC territories columns. Data for earlier years can be found in earlier editions of *Trends*.

Table 7.6 shows the number of payphones over time. The National Payphone Clearinghouse began providing detailed data to the Commission starting with data as of March 31, 1999. Where possible, data from the payphone proceedings were used to fill values for 1997 and 1998 (see the footnotes to Table 7.6 for citations).

---

<sup>2</sup> Source: Household data are from the Census Bureau's Current Population Survey. Distribution of wireless versus wireline is from Table 1 of Blumberg SJ, Luke JV. *Wireless Substitution: Early Release of Estimates From the National Health Interview Survey, July–December 2009*, National Center for Health Statistics, May 2010. Available from: <http://www.cdc.gov/nchs/nhis.htm>.

<sup>3</sup> See *Report and Order*, CC Docket 03-225, adopted Jul. 27, 2004.

<sup>4</sup> Further information on the National Payphone Clearinghouse can be found at <https://www.npc.cc/home.aspx>.

**Table 7.1**  
**Total U.S. Wireline Telephone Lines at Year-End**  
**(In Thousands)**

Year End	CLEC and ILEC End-User Switched Access Lines and VoIP Subscriptions <sup>1</sup>	Annual Growth (%)	ILEC Local Loops <sup>2</sup>	Annual Growth (%)	ILEC Access Lines <sup>3</sup>	Annual Growth (%)
1980			102,216			
1981			105,559	3.3 %		
1982			107,519	1.9		
1983			110,613	2.9		
1984			112,551	1.8	113,832	
1985			115,986	3.1	117,385	3.1 %
1986			118,289	2.0	120,730	2.8
1987			122,789	3.8	124,626	3.2
1988			127,087	3.5	126,900	1.8
1989			131,505	3.5	130,860	3.1
1990			136,114	3.5	134,686	2.9
1991			139,413	2.4	139,613	3.7
1992			143,342	2.8	142,367	2.0
1993			148,106	3.3	147,033	3.3
1994			153,448	3.6	151,543	3.1
1995			159,659	4.0	158,153	4.4
1996			166,446	4.3	165,350	4.6
1997			173,867	4.5	173,857	5.1
1998			179,849	3.4	180,516	3.8
1999	189,397		185,003	2.9	186,594	3.4
2000	192,432	1.6 %	188,500	1.9	187,581	0.5
2001	191,571	-0.4	185,587	-1.5	179,811	-4.1
2002	189,250	-1.2	180,095	-3.0	172,246	-4.2
2003	182,933	-3.3	173,141	-3.9	161,374	-6.3
2004	177,691	-2.9	165,980	-4.1	154,039	-4.5
2005	175,161	-1.4	157,038	-5.4	147,993	-3.9
2006	167,460	-4.4	146,843	-6.5	140,029	-5.4
2007	158,437	-5.4	135,790	-7.5	131,586	-6.0
2008	162,627	2.6	122,597	-9.7	121,675	-7.5

<sup>1</sup> Includes end-user switched access lines for competitive local exchange carriers (CLECs) and incumbent local exchange carrier (ILECs) as reported in FCC Form 477 through December 2008. Prior to June 2005, only carriers with greater than 10,000 lines in a state were required to report. Beginning in June 2005 all carriers were required to report. Beginning in December 2008, Form 477 required interconnected VoIP service to be reported. Prior to December 2008, individual incumbent LECs and competitive LECs - to a varying and largely unknown degree -included or excluded VoIP.

<sup>2</sup> Includes end-user switched access lines, resold lines, and UNE-P lines.

<sup>3</sup> Between 2001 and 2007, a substantial number of ILEC lines provided to CLECs as UNE-P lines are not included in the total.

Sources: CLEC and ILEC access lines: Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

Local loops: National Exchange Carrier Association, Universal Service Fund filings.

Access Lines: Industry Analysis and Technology Division, Wireline Competition Bureau, *Statistics of Communications Common Carriers*, Table 4.10, after inflating access lines of reporting carriers to represent the total industry. The 1996 adjustment factor was used for the years prior to 1996.

**Table 7.2**  
**Telephone Loops of Incumbent Local Exchange Carriers by State**  
**(As of December 31, 2007)**

	Study Areas	Price Cap		Non-Price Cap		Total Loops
		Bell Company Loops <sup>1</sup>	Other Company Loops	Average Schedule Company Loops <sup>2</sup>	Other Company Loops	
Alabama	28	1,523,645	256,974	27,869	162,320	1,970,808
Alaska	25	0	0	221	337,393	337,614
American Samoa	1	0	0	0	10,594	10,594
Arizona	17	1,884,555	152,416	0	39,154	2,076,125
Arkansas	28	777,072	0	12,064	373,703	1,162,839
California	22	18,071,665	138,362	0	196,856	18,406,883
Colorado	28	2,011,718	0	1,086	119,233	2,132,037
Connecticut	1	1,709,510	0	0	0	1,709,510
Delaware	1	444,456	0	0	0	444,456
District of Columbia	1	668,803	0	0	0	668,803
Florida	12	6,573,039	1,674,790	0	174,675	8,422,504
Georgia	36	3,074,899	2,419	47,706	749,948	3,874,972
Guam	1	0	0	0	62,004	62,004
Hawaii	2	0	541,852	0	1,876	543,728
Idaho	20	567,563	21,078	1,347	42,884	632,872
Illinois	56	5,687,714	101,207	28,008	183,959	6,000,888
Indiana	42	2,500,130	211,330	29,562	113,540	2,854,562
Iowa	154	799,979	273,137	151,189	69,865	1,294,170
Kansas	39	883,589	98,975	0	121,478	1,104,042
Kentucky	19	882,950	603,367	64,429	117,195	1,667,941
Louisiana	20	1,642,790	0	1,246	158,315	1,802,351
Maine	20	545,264	0	32,300	97,450	675,014
Maryland	2	3,033,677	0	0	6,783	3,040,460
Massachusetts	3	2,965,978	0	0	3,764	2,969,742
Michigan	39	3,965,623	21,254	23,411	144,335	4,154,623
Minnesota	88	1,525,566	365,551	181,783	185,556	2,258,456
Mississippi	19	1,031,779	0	8,774	76,622	1,117,175
Missouri	44	1,978,065	495,586	9,419	276,443	2,759,513
Montana	18	257,952	7,756	3,378	148,117	417,203
Nebraska	40	288,967	293,543	11,457	85,262	679,229
Nevada	14	353,602	691,230	0	32,845	1,077,677
New Hampshire	10	566,144	0	2,194	49,338	617,676
New Jersey	3	4,339,459	169,892	0	7,597	4,516,948
New Mexico	17	687,998	90,977	0	44,567	823,542
New York	44	7,408,210	671,129	8,865	216,047	8,304,251
North Carolina	26	2,076,198	1,142,574	205,494	436,725	3,860,991
North Dakota	22	127,680	0	49,037	108,093	284,810
Northern Mariana Islands	1	0	0	0	18,719	18,719
Ohio	42	3,513,794	1,044,004	34,693	331,450	4,923,941
Oklahoma	39	1,138,519	76,831	2,573	214,095	1,432,018
Oregon	33	1,374,059	75,009	2,505	135,546	1,587,119
Pennsylvania	36	5,023,358	348,012	515,689	221,612	6,108,671
Puerto Rico	2	0	0	0	924,692	924,692
Rhode Island	1	348,325	0	0	0	348,325
South Carolina	26	1,263,278	82,804	54,706	439,059	1,839,847
South Dakota	31	144,278	0	64,169	75,224	283,671
Tennessee	25	1,983,839	298,316	79,684	255,260	2,617,099
Texas	58	8,585,551	589,742	8,528	509,102	9,692,923
Utah	14	828,285	21,872	7,474	62,853	920,484
Vermont	10	301,380	0	4,539	57,355	363,274
Virgin Islands	1	0	0	0	64,964	64,964
Virginia	21	3,139,584	361,934	74,246	36,108	3,611,872
Washington	26	2,440,423	69,904	4,285	228,567	2,743,179
West Virginia	10	698,467	144,954	1,406	14,961	859,788
Wisconsin	90	1,735,356	50,405	166,780	525,016	2,477,557
Wyoming	10	185,933	6,094	0	43,146	235,173
<b>Total</b>	<b>1,438</b>	<b>113,560,668</b>	<b>11,195,280</b>	<b>1,922,116</b>	<b>9,112,265</b>	<b>135,790,329</b>

<sup>1</sup> Includes loops owned by Verizon/GTE and SBC/Southern New England Telephone.

<sup>2</sup> Average schedule companies have been permitted by the Commission to estimate their access settlements and universal service support through the use of average schedules to avoid the difficulties and expenses involved with conducting company-specific cost studies.

Source: NECA, *Universal Service Fund 2009 Submission of 2007 Study Results* (October 1, 2009).

**Table 7.2**  
**Telephone Loops of Incumbent Local Exchange Carriers by State - Continued**  
**(As of December 31, 2008)**

	Study Areas	Price Cap		Non-Price Cap		Total Loops
		Bell Company Loops <sup>1</sup>	Other Company Loops	Average Schedule Company Loops <sup>2</sup>	Other Company Loops	
Alabama	28	1,367,788	238,546	26,706	156,389	1,789,429
Alaska	25	0	0	216	304,807	305,023
American Samoa	1	0	0	0	10,435	10,435
Arizona	17	1,680,099	141,593	0	38,546	1,860,238
Arkansas	28	703,247	0	11,503	351,068	1,065,818
California	22	16,382,604	125,892	0	174,082	16,682,578
Colorado	28	1,799,321	0	1,040	113,614	1,913,975
Connecticut	1	1,520,344	0	0	0	1,520,344
Delaware	1	399,716	0	0	0	399,716
District of Columbia	1	603,803	0	0	0	603,803
Florida	12	5,726,555	1,467,518	0	164,971	7,359,044
Georgia	36	2,716,616	2,268	42,206	707,138	3,468,228
Guam	1	0	0	0	56,381	56,381
Hawaii	2	0	489,167	0	2,091	491,258
Idaho	20	518,223	19,654	1,297	40,590	579,764
Illinois	56	5,173,033	153,710	26,095	111,323	5,464,161
Indiana	42	2,264,853	197,863	27,755	107,251	2,597,722
Iowa	154	730,742	252,975	141,883	69,236	1,194,836
Kansas	39	793,720	91,271	0	116,942	1,001,933
Kentucky	19	778,293	548,829	61,642	110,701	1,499,465
Louisiana	20	1,518,814	0	1,099	149,504	1,669,417
Maine	20	0	483,998	28,331	88,718	601,047
Maryland	2	2,687,562	0	0	6,469	2,694,031
Massachusetts	3	2,693,252	0	0	3,590	2,696,842
Michigan	39	3,442,719	19,098	23,568	135,197	3,620,582
Minnesota	88	1,384,731	331,962	170,154	178,030	2,064,877
Mississippi	19	937,848	0	8,291	71,979	1,018,118
Missouri	44	1,814,200	466,748	8,964	264,040	2,553,952
Montana	18	231,522	7,619	3,198	142,549	384,888
Nebraska	40	260,036	277,000	11,055	82,398	630,489
Nevada	14	322,286	586,610	0	31,562	940,458
New Hampshire	10	0	489,599	2,155	46,480	538,234
New Jersey	3	3,855,791	155,971	0	6,947	4,018,709
New Mexico	17	625,477	87,522	0	42,652	755,651
New York	44	6,578,650	624,064	8,410	198,990	7,410,114
North Carolina	26	1,854,921	1,049,324	193,867	415,782	3,513,894
North Dakota	22	114,195	0	47,448	105,587	267,230
Northern Mariana Islands	1	0	0	0	17,576	17,576
Ohio	42	3,124,758	959,215	32,543	297,715	4,414,231
Oklahoma	39	1,051,039	72,323	2,442	203,528	1,329,332
Oregon	33	1,219,808	69,195	2,452	129,206	1,420,661
Pennsylvania	36	4,575,642	320,929	480,927	210,473	5,587,971
Puerto Rico	2	0	834,149	0	0	834,149
Rhode Island	1	318,993	0	0	0	318,993
South Carolina	26	1,129,673	77,867	51,602	409,002	1,668,144
South Dakota	31	129,519	0	61,528	73,218	264,265
Tennessee	25	1,768,955	244,434	76,557	239,330	2,329,276
Texas	58	7,876,006	716,734	7,961	347,876	8,948,577
Utah	14	742,087	21,166	7,294	60,983	831,530
Vermont	10	0	271,850	4,446	55,704	332,000
Virgin Islands	1	0	0	0	62,514	62,514
Virginia	21	2,826,151	345,558	71,193	34,726	3,277,628
Washington	26	2,160,053	66,585	4,132	214,023	2,444,793
West Virginia	10	634,698	141,560	1,422	14,876	792,556
Wisconsin	90	1,562,872	47,511	159,633	493,351	2,263,367
Wyoming	10	169,192	5,733	0	41,421	216,346
<b>Total</b>	<b>1,438</b>	<b>100,770,407</b>	<b>12,503,610</b>	<b>1,811,015</b>	<b>7,511,561</b>	<b>122,596,593</b>

<sup>1</sup> Includes loops owned by Verizon/GTE and SBC/Southern New England Telephone.

<sup>2</sup> Average schedule companies have been permitted by the Commission to estimate their access settlements and universal service support through the use of average schedules to avoid the difficulties and expenses involved with conducting company-specific cost studies.

Source: NECA, *Universal Service Fund 2009 Submission of 2008 Study Results* (October 1, 2009), and NECA's Non-Rural Wire Center Data as of December 31, 2008.

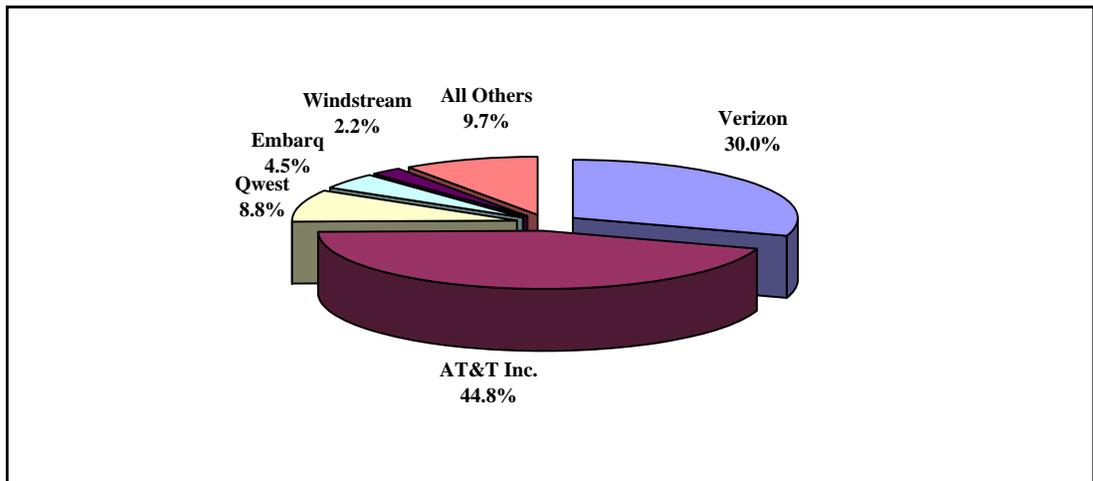
**Table 7.3**  
**Telephone Loops of Incumbent Local Exchange Carriers by Holding Company**<sup>1</sup>  
 (As of December 31, 2007)

<b>Holding Companies</b>	<b>Loops</b>	<b>Percent of Loops</b>
AT&T Inc.	60,827,401	44.80 %
Verizon Communications Inc.	40,718,592	29.99
Qwest Communications International, Inc.	12,014,675	8.85
Embarq	6,147,117	4.53
Windstream Corporation	2,964,396	2.18
Citizens Communications Company	2,181,905	1.61
CenturyTel, Inc.	2,101,532	1.55
America Movil	924,692	0.68
Cincinnati Bell Inc.	729,320	0.54
Telephone and Data Systems, Inc.	589,696	0.43
Hawaiian Telcom Communications, Inc.	541,852	0.40
Consolidated Communications, Inc.	270,398	0.20
FairPoint Communications, Inc.	232,840	0.17
Iowa Telecom	228,387	0.17
Alaska Communications Systems Holdings, Inc.	213,795	0.16
D & E Communications, Inc.	123,754	0.09
SureWest Communications	110,063	0.08
North-State Telephone Co. (NC)	100,840	0.07
Rock Hill Telephone Company	99,609	0.07
Horry Telephone Cooperative, Inc.	90,009	0.07
Hargray Communications Group, Inc.	72,976	0.05
Farmers Telephone Cooperative, Inc.	70,894	0.05
Virgin Islands Telephone Corporation	64,964	0.05
TeleGuam Holdings LLC	62,004	0.05
Matanuska Telephone Association, Inc.	57,304	0.04
Pioneer Telephone Cooperative (OK)	52,154	0.04
Hickory Tech Corporation	50,210	0.04
Lynch Interactive Corporation	48,409	0.04
NTELOS, Inc.	43,886	0.03
Atlantic Telephone Membership Corporation	42,895	0.03
Guadalupe Valley Telephone Cooperative, Inc.	40,969	0.03
Golden West Telecommunications Cooperative, Inc.	40,893	0.03
Twin Lakes Telephone Cooperative Corporation	37,240	0.03
SRT Services Corporation	37,096	0.03
Skyline Telephone Membership Corporation	35,746	0.03
EATEL Corp., Inc.	35,202	0.03
Otelco Inc.	34,733	0.03
Ben Lomand	34,149	0.03
All Other Companies	3,717,732	2.74
<b>Total</b>	<b>135,790,329</b>	<b>100.00 %</b>

<sup>1</sup> Includes incumbent local exchange carriers' loops for holding companies with more than 32,500 loops.

Source: NECA, *Universal Service Fund 2009 Submission of 2007 Study Results* (October 1, 2009).

**Chart 7.1**  
**Five Largest Holding Companies' Share of Loops as of December 31, 2007**



**Table 7.3**

**Telephone Loops of Incumbent Local Exchange Carriers by Holding Company - Continued <sup>1</sup>**  
**(As of December 31, 2008)**

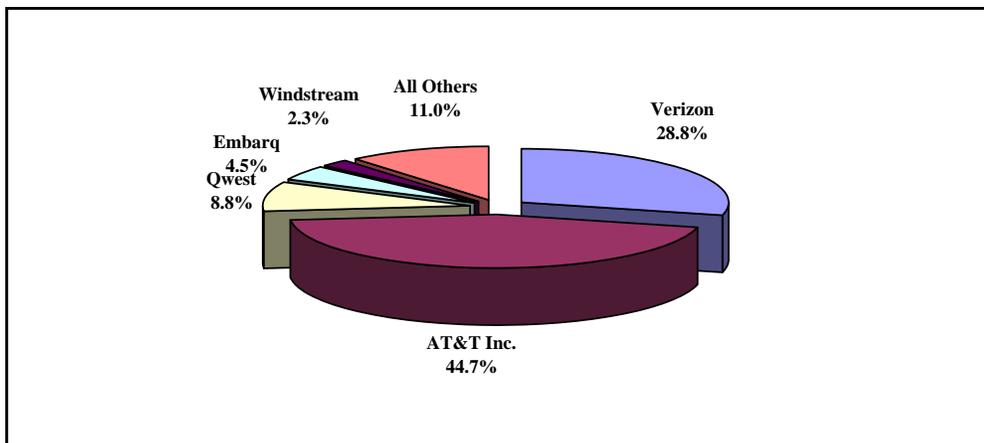
<b>Holding Companies</b>	<b>Loops</b>	<b>Percent of Loops</b>
AT&T Inc.	54,748,156	44.66 %
Verizon Communications Inc.	35,252,762	28.76
Qwest Communications International, Inc.	10,769,489	8.78
Embarq	5,507,418	4.49
Windstream Corporation	2,817,678	2.30
CenturyTel, Inc.	1,967,338	1.60
Frontier Communications Corporation	1,718,677	1.40
FairPoint Communications, Inc.	1,459,312	1.19
America Movil	834,149	0.68
Cincinnati Bell Inc.	679,326	0.55
Telephone and Data Systems, Inc.	567,754	0.46
Hawaiian Telcom Communications, Inc.	489,167	0.40
Citizens Communications Company	310,627	0.25
Consolidated Communications, Inc.	247,020	0.20
Iowa Telecom	222,579	0.18
Alaska Communications Systems Holdings, Inc.	188,815	0.15
D & E Communications, Inc.	118,346	0.10
Rock Hill Telephone Company	113,085	0.09
North-State Telephone Co. (NC)	92,834	0.08
SureWest Communications	91,404	0.07
Horry Telephone Cooperative, Inc.	82,755	0.07
Farmers Telephone Cooperative, Inc.	67,170	0.05
Hargray Communications Group, Inc.	66,722	0.05
Virgin Islands Telephone Corporation	62,514	0.05
TeleGuam Holdings LLC	56,381	0.05
Matanuska Telephone Association, Inc.	52,718	0.04
Otelco Inc.	49,883	0.04
Pioneer Telephone Cooperative (OK)	49,533	0.04
Lynch Interactive Corporation	46,162	0.04
Hickory Tech Corporation	45,535	0.04
Atlantic Telephone Membership Corporation	41,854	0.03
NTELOS, Inc.	41,443	0.03
Golden West Telecommunications Cooperative, Inc.	39,787	0.03
Guadalupe Valley Telephone Cooperative, Inc.	39,684	0.03
Twin Lakes Telephone Cooperative Corporation	36,105	0.03
SRT Services Corporation	35,622	0.03
Skyline Telephone Membership Corporation	34,807	0.03
EATEL Corp., Inc.	34,024	0.03
Ben Lomand	33,156	0.03
All Other Companies	3,484,802	2.84
Total	122,596,593	100.00 %

<sup>1</sup> Includes incumbent local exchange carriers' loops for holding companies with more than 32,500 loops.

Source: NECA, *Universal Service Fund 2009 Submission of 2008 Study Results* (October 1, 2009), and NECA's Non-Rural Wire Center Data as of December 31, 2008.

**Chart 7.2**

**Five Largest Holding Companies' Share of Loops as of December 31, 2008**



**Table 7.4**  
**Distribution of Households with Wireless and Wireline Telephone Service**  
**Households In Millions**

Year	Period	Wireline Only	Wireless Only	Both Wireline and Wireless	Wireline and Wireless Unknown	No Telephone Service <sup>1</sup>	Total Households
2007	1st Half	28.0	16.0	69.3	2.0	2.4	117.7
2007	2nd Half	25.7	18.6	69.2	1.5	2.7	118.2
2008	1st Half	24.2	20.6	68.9	1.1	2.9	118.0
2008	2nd Half	20.5	23.8	70.1	1.1	2.2	118.6
2009	1st Half	18.2	26.7	69.9	0.5	2.4	118.4
2009	2nd Half	17.5	28.8	68.5	0.5	2.4	119.2

**Percentage**

Year	Period	Wireline Only	Wireless Only	Both Wireline and Wireless	Wireline and Wireless Unknown	No Telephone Service <sup>1</sup>	Total Households
2007	1st Half	23.8%	13.6%	58.9%	1.7%	2.0%	100.0%
2007	2nd Half	21.8	15.8	58.8	1.3	2.3	100.0
2008	1st Half	20.6	17.5	58.5	0.9	2.5	100.0
2008	2nd Half	17.4	20.2	59.6	0.9	1.9	100.0
2009	1st Half	15.5	22.7	59.4	0.4	2.0	100.0
2009	2nd Half	14.9	24.5	58.2	0.4	2.0	100.0

Source: Household data are from the Censu Bureau's Current Population Survey. Distribution of wireless versus wireline is from Table 1 of Blumberg SJ, Luke JV. *Wireless Substitution: Early Release of Estimates from the National Health Interview Survey, July–December 2009*, National Center for Health Statistics (NCHS), May 2010. Available from: <http://www.cdc.gov/nchs/nhis.htm> and from FCC staff estimates.

<sup>1</sup> Includes households reporting "no telephone service" and households reporting "nonlandline with unknown wireless telephone status" in the NCHS report.

**Table 7.5**  
**Number of Payphones Owned by LECs and Independent Operators**  
**(As of March 31, 2008)**

State	RBOC Territories		All Other LEC Territories		Statewide		Grand Total
	LEC-Owned	Independent	LEC-Owned	Independent	LEC-Owned	Independent	
Alabama	13	5,864	120	215	133	6,079	6,212
Alaska	0	0	1,886	1,744	1,886	1,744	3,630
Arizona	59	12,362	725	834	784	13,196	13,980
Arkansas	191	1,981	592	364	783	2,345	3,128
California	29,079	65,557	953	739	30,032	66,296	96,328
Colorado	0	8,164	23	37	23	8,201	8,224
Connecticut	2,665	2,767	0	0	2,665	2,767	5,432
Delaware	1,411	1,005	0	0	1,411	1,005	2,416
District of Columbia	3,468	488	0	0	3,468	488	3,956
Florida	4,186	21,591	4,877	3,758	9,063	25,349	34,412
Georgia	107	11,394	1,681	1,635	1,788	13,029	14,817
Hawaii	0	0	5,251	452	5,251	452	5,703
Idaho	364	1,620	218	97	582	1,717	2,299
Illinois	8,262	13,562	527	608	8,789	14,170	22,959
Indiana	3,800	6,113	1,030	498	4,830	6,611	11,441
Iowa	15	3,406	536	670	551	4,076	4,627
Kansas	430	2,422	483	340	913	2,762	3,675
Kentucky	8	3,696	1,944	1,878	1,952	5,574	7,526
Louisiana	13	5,949	31	128	44	6,077	6,121
Maine	2,833	391	12	174	2,845	565	3,410
Maryland	13,605	4,197	0	6	13,605	4,203	17,808
Massachusetts	15,155	6,287	0	0	15,155	6,287	21,442
Michigan	4,547	9,559	268	146	4,815	9,705	14,520
Minnesota	31	6,149	1,153	664	1,184	6,813	7,997
Mississippi	21	3,974	48	50	69	4,024	4,093
Missouri	1,392	4,504	994	1,270	2,386	5,774	8,160
Montana	43	1,402	288	221	331	1,623	1,954
Nebraska	0	1,844	2,304	498	2,304	2,342	4,646
Nevada	82	1,221	1,268	5,201	1,350	6,422	7,772
New Hampshire	2,541	1,029	73	5	2,614	1,034	3,648
New Jersey	27,298	8,710	767	57	28,065	8,767	36,832
New Mexico	0	3,774	213	627	213	4,401	4,614
New York	60,922	26,219	6,539	1,196	67,461	27,415	94,876
North Carolina	918	7,092	5,536	4,359	6,454	11,451	17,905
North Dakota	0	520	74	111	74	631	705
Ohio	5,604	7,947	4,048	1,736	9,652	9,683	19,335
Oklahoma	964	3,590	907	425	1,871	4,015	5,886
Oregon	603	6,848	322	478	925	7,326	8,251
Pennsylvania	18,120	10,852	5,194	1,038	23,314	11,890	35,204
Rhode Island	1,944	1,337	0	0	1,944	1,337	3,281
South Carolina	503	6,082	916	1,012	1,419	7,094	8,513
South Dakota	1	1,087	279	109	280	1,196	1,476
Tennessee	5	7,447	1,244	1,010	1,249	8,457	9,706
Texas	10,606	30,642	1,102	2,466	11,708	33,108	44,816
Utah	2	3,333	229	333	231	3,666	3,897
Vermont	1,380	198	35	51	1,415	249	1,664
Virginia	12,976	7,082	1,484	921	14,460	8,003	22,463
Washington	1,684	12,719	241	355	1,925	13,074	14,999
West Virginia	3,925	938	553	320	4,478	1,258	5,736
Wisconsin	1,840	4,111	559	441	2,399	4,552	6,951
Wyoming	1	1,282	22	75	23	1,357	1,380
Totals	243,617	360,308	57,549	39,352	301,166	399,660	700,826

Source: Raw data provided by National Payphone Clearinghouse. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

**Table 7.5**  
**Number of Payphones Owned by LECs and Independent Operators - Continued**  
**(As of March 31, 2009)**

State	RBOC Territories		All Other LEC Territories		Statewide		Grand Total
	LEC-Owned	Independent	LEC-Owned	Independent	LEC-Owned	Independent	
Alabama	13	4,644	1,068	644	1,081	5,288	6,369
Alaska	0	0	1,681	688	1,681	688	2,369
Arizona	71	10,999	699	614	770	11,613	12,383
Arkansas	0	1,583	1,321	381	1,321	1,964	3,285
California	13,199	57,910	879	593	14,078	58,503	72,581
Colorado	12	7,056	179	217	191	7,273	7,464
Connecticut	105	2,883	0	0	105	2,883	2,988
Delaware	967	582	0	0	967	582	1,549
District of Columbia	2,767	351	0	0	2,767	351	3,118
Florida	2,774	17,403	2,654	3,554	5,428	20,957	26,385
Georgia	83	9,204	1,627	1,475	1,710	10,679	12,389
Hawaii	0	0	5,171	378	5,171	378	5,549
Idaho	276	1,492	242	85	518	1,577	2,095
Illinois	1,618	14,905	801	248	2,419	15,153	17,572
Indiana	1,973	5,473	606	405	2,579	5,878	8,457
Iowa	14	2,932	474	528	488	3,460	3,948
Kansas	4	2,028	260	216	264	2,244	2,508
Kentucky	8	2,718	1,774	1,531	1,782	4,249	6,031
Louisiana	13	4,532	160	181	173	4,713	4,886
Maine	0	2,776	35	172	35	2,948	2,983
Maryland	10,874	3,560	0	0	10,874	3,560	14,434
Massachusetts	12,269	5,295	0	0	12,269	5,295	17,564
Michigan	1,036	7,571	565	190	1,601	7,761	9,362
Minnesota	161	4,859	900	424	1,061	5,283	6,344
Mississippi	21	2,952	68	93	89	3,045	3,134
Missouri	48	3,727	1,694	1,275	1,742	5,002	6,744
Montana	41	1,175	363	242	404	1,417	1,821
Nebraska	0	1,270	2,112	349	2,112	1,619	3,731
Nevada	26	1,028	1,433	3,341	1,459	4,369	5,828
New Hampshire	0	3,106	70	27	70	3,133	3,203
New Jersey	22,361	6,829	389	39	22,750	6,868	29,618
New Mexico	1	3,180	160	468	161	3,648	3,809
New York	51,659	21,018	6,196	806	57,855	21,824	79,679
North Carolina	719	5,855	3,874	3,879	4,593	9,734	14,327
North Dakota	0	309	64	97	64	406	470
Ohio	1,555	7,498	3,489	1,412	5,044	8,910	13,954
Oklahoma	9	3,240	693	211	702	3,451	4,153
Oregon	422	6,340	406	500	828	6,840	7,668
Pennsylvania	13,709	8,108	4,307	728	18,016	8,836	26,852
Rhode Island	1,554	1,234	0	0	1,554	1,234	2,788
South Carolina	395	4,797	771	775	1,166	5,572	6,738
South Dakota	4	826	239	96	243	922	1,165
Tennessee	5	6,132	887	909	892	7,041	7,933
Texas	3,097	25,973	1,236	1,951	4,333	27,924	32,257
Utah	7	3,372	196	182	203	3,554	3,757
Vermont	0	1,488	34	37	34	1,525	1,559
Virginia	9,155	5,216	914	713	10,069	5,929	15,998
Washington	1,212	9,350	373	609	1,585	9,959	11,544
West Virginia	3,149	767	504	214	3,653	981	4,634
Wisconsin	438	3,992	2,541	937	2,979	4,929	7,908
Wyoming	0	1,038	43	162	43	1,200	1,243
Totals	157,824	310,576	54,152	32,576	211,976	343,152	555,128

Source: Raw data provided by National Payphone Clearinghouse. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

**Table 7.6**  
**Number of Payphones Over Time**  
**(As of March 31 of Each Year)**

Year	RBOCs' Territories			All Other LECs' Territories					Grand Total
	LEC-Owned	Independent	Total	LEC Owned	Independent	Total	LEC Owned	Independent	
1997	1,399,600 <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	2,086,540 <sup>2</sup>
1998	1,381,800 <sup>1</sup>	NA	NA	NA	NA	NA	NA	NA	2,100,558 <sup>2</sup>
1999	1,305,463	572,503	1,877,966	80,491	163,069	243,560	1,385,954	735,572	2,121,526
2000	1,244,535	633,022	1,877,557	63,808	122,353	186,161	1,308,343	755,375	2,063,718
2001	1,131,377	571,778	1,703,155	88,399	128,086	216,485	1,219,776	699,864	1,919,640
2002	964,999	531,801	1,496,800	95,639	118,622	214,261	1,060,638	650,423	1,711,061
2003	854,295	464,479	1,318,774	75,885	101,127	177,012	930,180	565,606	1,495,786
2004	737,146	455,506	1,192,652	78,642	73,705	152,347	815,788	529,211	1,344,999
2005	587,373	486,384	1,073,757	78,815	63,603	142,418	666,188	549,987	1,216,175
2006	444,649	453,283	897,932	59,197	49,673	108,870	503,846	502,956	1,006,802
2007	334,117	413,074	747,191	61,009	64,056	125,065	395,126	477,130	872,256
2008	243,617	360,308	603,925	57,549	39,352	96,901	301,166	399,660	700,826
2009	157,824	310,576	468,400	54,152	32,576	86,728	211,976	343,152	555,128

NA - Not Available.

<sup>1</sup> See RBOC/GTE/SNET Payphone Coalition Comments on Remand Issues in CC Docket No. 96-128, Report of Arthur Andersen on Per-Call Compensation, Carl R. Geppert at 10 (July 13, 1998).

<sup>2</sup> See Letter from Denny Reuss, NPC Product Manager, to Craig Stroup, Federal Communications Commission, CC Docket 96-128 at 1 (Filed October 22, 1998. The 1997 data point is as of June 30, 1997.)

Source: Unless otherwise noted, raw data provided by National Payphone Clearinghouse. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

## 8 Local Telephone Competition

For most of the past century, households and businesses had no choice in selecting their local telephone company. In the 1980s, competitive access providers (CAPs) began to market access services provided over CAPs' wired networks to business customers. To some extent they also carried local telephone calls among their customers. In the 1990s, some CAPs and other companies, including affiliates of cable television companies and local service divisions of long distance companies, began to offer local telephone services to a broader range of customers. Companies with operations in larger cities added operations in smaller cities, where the typical customer is more likely to be a small or medium-sized business than a large business, and some new companies focused on smaller cities from the beginning. These competitors are often called competitive local exchange carriers (CLECs), although the terms CAPs and CLECs are sometimes used interchangeably.

The Telecommunications Act of 1996 (1996 Act) contemplated three vehicles for competitors to enter local telephone service markets. First, CLECs may resell the services of incumbent local exchange carriers (ILECs). Second, CLECs may make use of ILEC facilities, for example, by leasing ILEC unbundled network elements (UNEs) loops and transport. Third, CLECs may build the complete set of facilities they need to compete. Individual CLECs have used various combinations of these methods at different times.

Since about 2002, cable companies and others have begun offering retail interconnected Voice over Internet Protocol (interconnected VoIP) service, which enables voice communications over a broadband connection and allows users both to receive calls from, and place calls to, the public switched telephone network, like traditional phone service. The service represents a rapidly growing part of the U.S. voice services market. Providers include companies like Vonage as well as cable and telephone companies that own their own networks.

### 1. Non-ILEC Share of Switched Access Lines and Interconnected VoIP Subscriptions

All ILECs and non-ILECs (collectively, CLECs and those interconnected VoIP providers who do not have ILEC regulatory status) were required to report to the Commission basic information about their local telephone and interconnected VoIP services starting in December 2008. From June 2005 through June 2008, only local exchange carriers were required to report.<sup>1</sup> From December 1999 through December

---

<sup>1</sup> Prior to the December 2008 data, companies that solely provide interconnected VoIP service did not file Form 477. Local exchange carriers were required to file Form 477, but were not required to report interconnected VoIP subscriptions. However, some local exchange carriers chose to include interconnected VoIP subscriptions in the number of retail (end-user) switched access lines that they reported.

2004, only local exchange carriers with at least 10,000 switched access lines in service in a particular state were required to report. Small carriers, many of whom serve rural areas with relatively small populations, were therefore underrepresented in those data.<sup>2</sup>

Table 8.1 and the associated chart show the number of ILEC and non-ILEC end-user switched access lines and interconnected VoIP subscriptions from December 1999 through December 2008. Table 8.2 and the associated chart show the relative shares of the residential end-user switched access lines and interconnected VoIP subscriptions provisioned by ILECs and non-ILECs from December 1999 through December 2008.

Table 8.3 shows the percentages of non-ILEC end-user access lines and interconnected VoIP subscriptions that were provisioned over CLEC-owned local loop facilities, over lines acquired from unaffiliated carriers, and as interconnected VoIP, from December 1999 through December 2008. Chart 8.3 displays that information graphically for December 2008. Data reported by ILECs, presented in Table 8.4, show the lines that ILECs provided to other carriers as UNE loops provided with ILEC switching (including the UNE-platform), UNE loops provided without switching, and resale. Chart 8.4 shows the trend, from December 1999 through December 2008, of ILEC total switched access lines and the percentages provided to other carriers.

Table 8.5 shows ILEC and non-ILEC end-user switched access lines and interconnected VoIP subscriptions by state as of December 31, 2008. Tables 8.6 and 8.7 present similar data for residential and business end-user switched access lines and interconnected VoIP subscriptions. Table 8.8 presents historical data on non-ILEC share of total end-user switched access lines and interconnected VoIP subscriptions by state.

## **2. New Competitors Share of Local Telephone Service Revenues**

As discussed in Section 15, the Commission has been collecting revenue data from local exchange carriers since 1993. Table 8.9 shows new competitors and ILEC local telephone service revenues from 1997 through 2007. Chart 8.5 shows the ILEC and new competitor's shares of local service revenues from 1998 through 2007.

## **3. Ported Telephone Numbers**

When telecommunications customers switch service providers, they have the option of taking their local telephone number with them. This is called *porting*. All ported numbers reside in one of seven regional databases. These databases contain several elements of information about ported numbers, including identifiers for the old and new carriers, and the date the number was ported. The porting databases are

---

<sup>2</sup> As of December, 2005, filers with fewer than 10,000 switched access lines in a state (including entities that previously filed on a voluntary basis) reported about 4.5 million lines (about 2.0 million ILEC lines and about 2.5 million CLEC lines).

overseen by the local number portability administrator, currently NeuStar, Inc. NeuStar provides the FCC with two sets of information on ported numbers.

The first set of information is a rollup of the quantity of telephone numbers that were ported each month. This information forms the basis for Table 8.10. Unlike Tables 8.11 and 8.12 (see footnote 2 in Table 8.12), these figures include instances where the customer ports the number back to the original carrier.

The second set of information that the FCC receives from NeuStar on a monthly basis is a current list of all ported numbers where the customer changed carriers. For each number, the list includes identifiers for the old and new carriers for that number, and the date the number was ported. In order to protect consumer privacy, the Commission receives the information in a manner that prevents it from determining if any particular telephone number has been ported. This information forms the basis for Tables 8.11 and 8.12.

Table 8.11 shows the quantities of ports in the porting databases at the end of each quarter. The ports are broken out by service type: from landline to landline, landline to mobile, mobile to mobile, and mobile to landline. Table 8.12 examines the ports in the databases as of March 31, 2009. It shows, by service type, when each number in the database was ported.

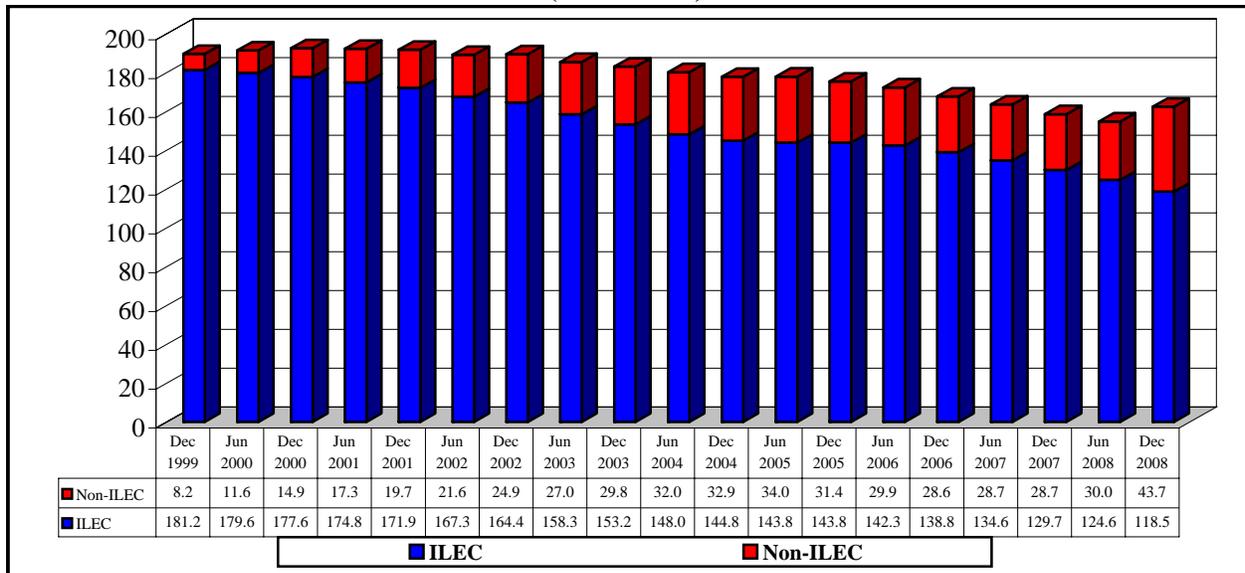
**Table 8.1**  
**End-User Switched Access Lines and VoIP Subscriptions<sup>1</sup>**  
**(In Thousands)**

Date	Provided by		Total	Non-ILEC Share
	ILEC	Non-ILEC		
Dec 1999	181,203	8,194	189,397	4.3 %
Jun 2000	179,649	11,557	191,206	6.0
Dec 2000	177,561	14,871	192,432	7.7
Jun 2001	174,752	17,275	192,027	9.0
Dec 2001	171,917	19,653	191,571	10.3
Jun 2002	167,330	21,645	188,975	11.5
Dec 2002	164,386	24,864	189,250	13.1
Jun 2003	158,275	26,985	185,260	14.6
Dec 2003	153,158	29,775	182,933	16.3
Jun 2004	147,993	32,034	180,027	17.8
Dec 2004	144,810	32,881	177,691	18.5
Jun 2005	143,758	33,975	177,733	19.1
Dec 2005	143,773	31,388	175,161	17.9
Jun 2006	142,293	29,896	172,189	17.4
Dec 2006	138,834	28,626	167,460	17.1
Jun 2007	134,640	28,729	163,369	17.6
Dec 2007	129,693	28,725	158,418	18.1
Jun 2008	124,606	30,049	154,655	19.4
Dec 2008	118,503	43,726	162,230	27.0

<sup>1</sup> Only incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs) with at least 10,000 retail or wholesale switched access lines in service in a state were required to report through December 2004. All were required to report June 2005 and later data. Providers of interconnected VoIP service were first required to report subscribers as of December 2008, and individual ILECs and CLECs, to a varying and largely unknown degree, included or excluded VoIP subscribers in the earlier data. Interconnected VoIP is distinguished from VoIP service more generally by permitting users to receive calls that originate on the public switched telephone network and to terminate calls to the public switched telephone network. See 47 C.F.R. § 9.3. Form 477 counts both switched access lines and interconnected VoIP subscriptions as the maximum number of calls that may be active, simultaneously, from the end user's location under the purchased service plan.

Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

**Chart 8.1**  
**End-User Switched Access Lines and VoIP Subscriptions**  
**(In Millions)**



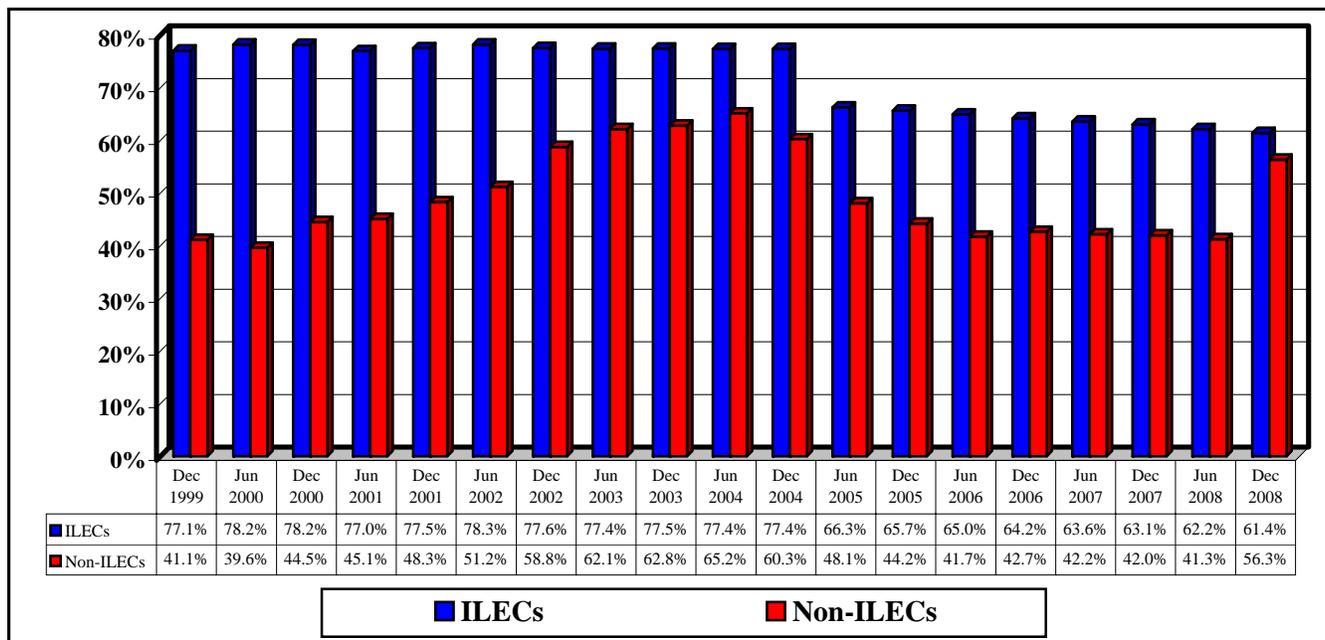
**Table 8.2**  
**End-User Switched Access Lines and VoIP Subscriptions by Customer Type<sup>1</sup>**  
**(In Thousands)**

Date	Reporting ILECs			Reporting Non-ILECs		
	Residential	Business	% Residential	Residential	Business	% Residential
Dec 1999	139,694	41,508	77.1 %	3,369	4,826	41.1 %
Jun 2000	140,566	39,083	78.2	4,580	6,978	39.6
Dec 2000	138,824	38,737	78.2	6,620	8,251	44.5
Jun 2001	134,531	40,221	77.0	7,793	9,482	45.1
Dec 2001	133,320	38,597	77.5	9,489	10,164	48.3
Jun 2002	130,937	36,393	78.3	11,081	10,564	51.2
Dec 2002	127,495	36,892	77.6	14,608	10,255	58.8
Jun 2003	122,574	35,701	77.4	16,771	10,215	62.1
Dec 2003	118,659	34,499	77.5	18,702	11,073	62.8
Jun 2004	114,533	33,460	77.4	20,872	11,162	65.2
Dec 2004	112,054	32,755	77.4	19,812	13,069	60.3
Jun 2005	95,316	48,442	66.3	16,338	17,637	48.1
Dec 2005	94,393	49,381	65.7	13,873	17,515	44.2
Jun 2006	92,453	49,840	65.0	12,474	17,422	41.7
Dec 2006	89,167	49,667	64.2	12,211	16,415	42.7
Jun 2007	85,633	49,007	63.6	12,117	16,612	42.2
Dec 2007	81,798	47,894	63.1	12,051	16,675	42.0
Jun 2008	77,457	47,149	62.2	12,396	17,654	41.3
Dec 2008	72,785	45,718	61.4	24,634	19,092	56.3

<sup>1</sup> In 2004, the Commission modified instructions for reporting lines serving small businesses. They were counted with residential lines through December 2004 and with business lines thereafter. This change caused a one-time drop in the percentages of ILEC and CLEC lines reported as residential. The December 2008 data are the first for which comprehensive reporting of interconnected VoIP subscribers was required. See footnote 1, Table 8.1.

Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

**Chart 8.2**  
**Percent of Lines and VoIP Subscriptions that Serve Residential Customers<sup>1</sup>**



**Table 8.3**  
**End-User Switched Access Lines and VoIP Subscriptions Reported by Non-ILECs<sup>1</sup>**  
**(Lines and Subscriptions in Thousands)**

Date	Reporting Non-ILECs	End-User Switched Access Lines and VoIP Subscriptions	End-User Switched Access Lines			VoIP	Percent			
			Acquired from other LECs		CLEC-owned local loops <sup>3</sup>		Resold LEC service	ILEC UNEs	CLEC-owned local loops	VoIP
			Resold LEC service	ILEC UNEs <sup>2</sup>						
Dec 1999	81	8,194	3,513	1,959	2,723	-	42.9%	23.9%	33.2%	-
Jun 2000	78	11,557	4,315	3,201	4,042	-	37.3	27.7	35.0	-
Dec 2000	89	14,871	4,114	5,540	5,217	-	27.7	37.3	35.1	-
Jun 2001	91	17,275	3,919	7,580	5,776	-	22.7	43.9	33.4	-
Dec 2001	94	19,653	4,250	9,332	6,072	-	21.6	47.5	30.9	-
Jun 2002	96	21,645	4,478	10,930	6,236	-	20.7	50.5	28.8	-
Dec 2002	112	24,864	4,677	13,709	6,479	-	18.8	55.1	26.1	-
Jun 2003	125	26,985	4,887	15,728	6,370	-	18.1	58.3	23.6	-
Dec 2003	136	29,775	4,842	17,888	7,045	-	16.3	60.1	23.7	-
Jun 2004	137	32,034	4,927	19,624	7,483	-	15.4	61.3	23.4	-
Dec 2004	149	32,881	5,417	18,961	8,503	-	16.5	57.7	25.9	-
Jun 2005	326	33,975	5,826	19,025	9,124	-	17.1	56.0	26.9	-
Dec 2005	382	31,388	6,704	14,521	10,163	-	21.4	46.3	32.4	-
Jun 2006	400	29,896	6,548	12,547	10,802	-	21.9	42.0	36.1	-
Dec 2006	397	28,626	5,819	11,663	11,144	-	20.3	40.7	38.9	-
Jun 2007	406	28,729	6,193	11,511	11,025	-	21.6	40.1	38.4	-
Dec 2007	443	28,725	6,430	10,582	11,713	-	22.4	36.8	40.8	-
Jun 2008	469	30,049	6,073	10,884	13,093	-	20.2	36.2	43.6	-
Dec 2008	701	43,726	7,065	9,597	6,338	20,726	16.2	21.9	14.5	47.4%

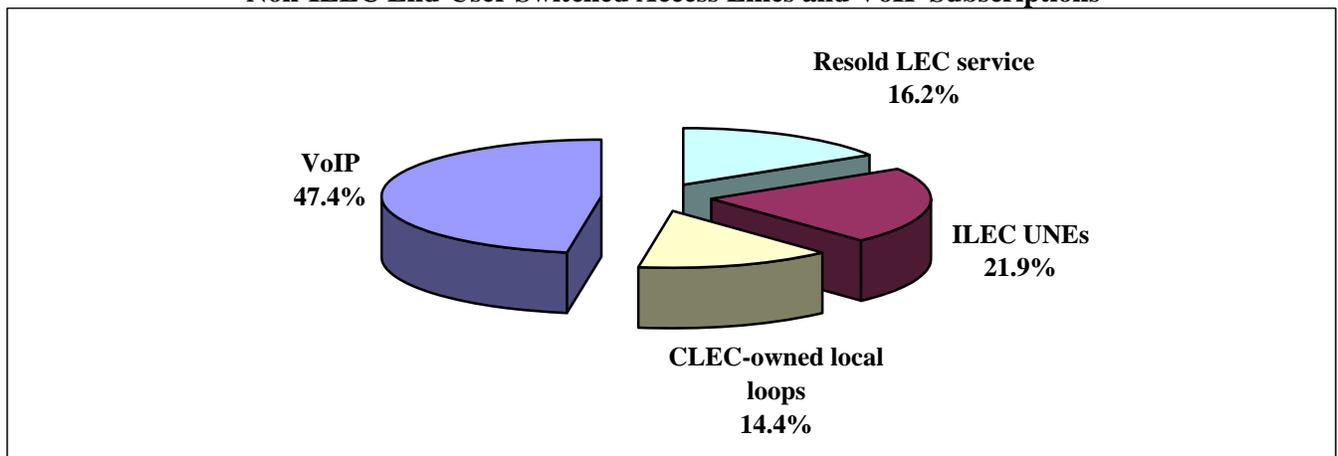
<sup>1</sup> See footnote 1, Table 8.1.

<sup>2</sup> Includes unbundled network element (UNE) loops leased from an unaffiliated ILEC on a stand-alone basis and also UNE loops leased in combination with UNE switching or any other unbundled network element.

<sup>3</sup> Lines provided over CLEC-owned "last-mile" facilities.

Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

**Chart 8.3**  
**Non-ILEC End-User Switched Access Lines and VoIP Subscriptions**



**Table 8.4**

**ILEC End-User (Retail) and Wholesale Switched Access Lines, VoIP Subscriptions, and UNEs<sup>1</sup>  
(Lines, Subscriptions, and UNEs in Thousands)**

Date	Reporting ILECs <sup>2</sup>	ILEC Total Lines <sup>3</sup>	End-User Switched Access Lines	VoIP	Switched Access Lines and UNEs Provided to CLECs					
					Resold Lines	UNEs			Total UNEs & Resold Lines	% of Total Lines
						Without Switching	With Switching <sup>4</sup>	Total UNEs		
Dec 1999	168	187,190	181,203	-	4,494	1,004	489	1,493	5,987	3.2 %
Jun 2000	159	188,058	179,679	-	5,098	1,696	1,616	3,312	8,409	4.5
Dec 2000	166	188,223	177,561	-	5,388	2,436	2,838	5,274	10,662	5.7
Jun 2001	156	187,092	174,752	-	4,417	3,161	4,761	7,922	12,340	6.6
Dec 2001	164	185,391	171,917	-	4,014	3,679	5,781	9,460	13,474	7.3
Jun 2002	166	182,345	167,330	-	3,475	4,061	7,478	11,540	15,015	8.2
Dec 2002	174	181,616	164,386	-	2,743	4,259	10,227	14,487	17,229	9.5
Jun 2003	181	177,770	158,275	-	2,232	4,227	13,036	17,263	19,495	11.0
Dec 2003	185	174,453	153,158	-	1,833	4,287	15,176	19,463	21,296	12.2
Jun 2004	185	171,050	147,993	-	1,600	4,322	17,136	21,458	23,057	13.5
Dec 2004	190	167,063	144,810	-	1,490	4,217	16,546	20,763	22,253	13.3
Jun 2005	757	164,449	143,758	-	1,796	4,300	14,596	18,895	20,691	12.6
Dec 2005	807	160,881	143,773	-	1,793	4,469	10,846	15,315	17,108	10.6
Jun 2006	805	156,872	142,293	-	1,723	4,413	8,443	12,856	14,579	9.3
Dec 2006	814	151,958	138,834	-	1,613	4,408	7,103	11,511	13,124	8.6
Jun 2007	816	146,672	134,640	-	1,517	4,285	6,230	10,515	12,032	8.2
Dec 2007	805	140,808	129,693	-	1,460	4,122	5,534	9,655	11,115	7.9
Jun 2008	800	134,846	124,606	-	1,473	3,827	4,941	8,768	10,241	7.6
Dec 2008	780	128,295	117,975	529	3,209	3,844	2,740	6,583	9,792	7.6

Figures may not add to totals due to rounding.

<sup>1</sup> See footnote 1, Table 8.1.

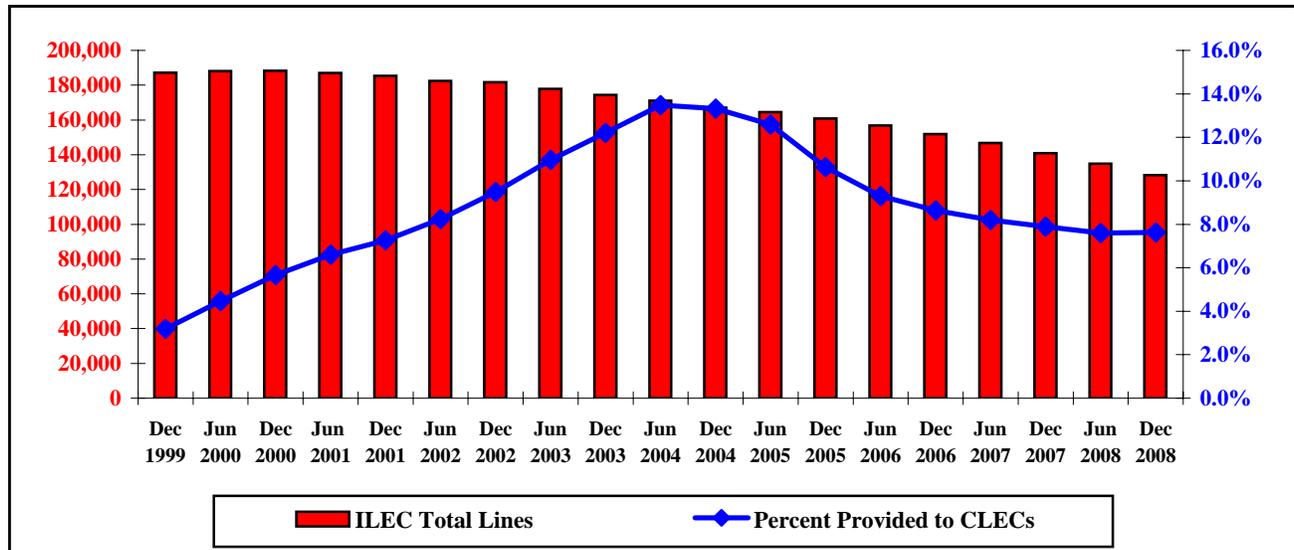
<sup>2</sup> Fewer ILECs were counted for year-end 2008 than year-end 2007 primarily because FCC staff identified additional common-control relationships among filers.

<sup>3</sup> This figure is the sum of ILEC-reported end-user (retail) switched access lines, ILEC interconnected VoIP subscriptions, and ILEC wholesale switched access lines and UNEs provided to CLECs.

<sup>4</sup> ILEC loops provided with ILEC switching, including the combination of ILEC loop UNE, switching UNE, and transport UNE, collectively referred to as the UNE-Platform ("UNE-P"). The Commission directed CLECs to migrate their retail customers served by these methods to an alternative arrangement by March 11, 2006, i.e., within 12 months of the effective date of the *Triennial Review Remand Order*. See C.F.R. § 51.319(d)(2)(ii).

Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

**Chart 8.4**  
**ILEC Total Lines and the Percent Provided to CLECs**



**Table 8.5**  
**Total End-User Switched Access Lines and VoIP Subscriptions by State as of December 31, 2008**  
**(In Thousands)**

State	ILECs				Non-ILECs				Total	Non-ILEC % of Total
	Switched Access Lines	VoIP purchased as		Total	Switched Access Lines	VoIP purchased as		Total		
		Stand- alone	Bundled with Internet			Stand- alone	Bundled with Internet			
Alabama	1,745	#	#	1,746	307	57	95	460	2,205	21%
Alaska	289	0	0	289	*	1	*	*	*	*
American Samoa	10	0	0	10	0	0	0	0	10	0
Arizona	1,847	#	#	1,847	956	73	175	1,204	3,051	39
Arkansas	1,018	#	3	1,021	143	19	61	223	1,245	18
California	16,274	6	66	16,345	2,464	413	1,659	4,536	20,882	22
Colorado	1,873	0	0	1,873	430	88	320	838	2,711	31
Connecticut	1,515	1	24	1,540	247	45	333	625	2,165	29
Delaware	379	#	1	380	79	*	*	164	544	30
District of Columbia	733	#	4	737	131	12	38	182	919	20
Florida	7,395	4	40	7,440	1,179	385	1,125	2,690	10,130	27
Georgia	3,465	2	2	3,468	622	158	376	1,157	4,626	25
Guam	54	0	0	54	*	*	*	*	*	*
Hawaii	512	#	0	512	40	*	*	114	626	18
Idaho	581	#	#	582	81	10	30	122	703	17
Illinois	5,282	2	58	5,342	738	246	662	1,646	6,989	24
Indiana	2,524	1	22	2,547	266	73	219	559	3,106	18
Iowa	1,113	#	#	1,113	198	97	13	307	1,421	22
Kansas	933	#	6	939	264	25	128	417	1,356	31
Kentucky	1,458	#	#	1,458	292	25	176	493	1,951	25
Louisiana	1,634	#	#	1,634	289	41	158	488	2,122	23
Maine	539	#	2	542	108	*	*	211	753	28
Maryland	2,581	1	7	2,588	462	88	304	854	3,443	25
Massachusetts	2,477	1	15	2,493	794	134	661	1,590	4,084	39
Michigan	3,444	2	67	3,512	607	177	658	1,442	4,954	29
Minnesota	1,922	0	#	1,922	554	84	234	873	2,794	31
Mississippi	963	#	#	963	111	21	49	182	1,145	16
Missouri	2,463	1	2	2,465	256	62	196	514	2,980	17
Montana	387	0	0	387	46	7	47	101	488	21
Nebraska	584	#	#	584	250	10	38	298	882	34
Nevada	970	#	2	972	188	54	172	414	1,386	30
New Hampshire	469	0	1	470	172	33	137	343	813	42
New Jersey	3,715	1	25	3,741	784	118	1,015	1,917	5,658	34
New Mexico	754	#	#	754	72	14	35	121	875	14
New York	6,534	2	20	6,557	2,063	191	2,257	4,511	11,068	41
North Carolina	3,511	3	5	3,519	463	106	516	1,084	4,603	24
North Dakota	241	0	0	241	79	*	*	113	354	32
Northern Mariana Isl.	17	0	0	17	0	0	0	0	17	0
Ohio	4,291	1	34	4,326	644	74	745	1,463	5,790	25
Oklahoma	1,210	#	6	1,216	318	39	162	519	1,736	30
Oregon	1,284	#	1	1,286	301	49	221	571	1,856	31
Pennsylvania	5,233	1	9	5,243	1,326	194	667	2,186	7,430	29
Puerto Rico	755	0	0	755	121	8	81	210	965	22
Rhode Island	292	#	#	292	259	*	*	316	608	52
South Carolina	1,625	#	4	1,629	243	50	179	472	2,101	22
South Dakota	251	0	0	251	98	*	*	140	391	36
Tennessee	2,296	1	#	2,297	426	69	255	751	3,048	25
Texas	8,634	5	34	8,673	1,242	200	908	2,350	11,022	21
Utah	776	0	0	776	134	32	103	269	1,046	26
Vermont	289	0	#	289	54	*	*	88	378	23
Virgin Islands	61	0	0	61	0	*	*	*	*	*
Virginia	3,254	1	9	3,265	1,015	122	290	1,427	4,692	30
Washington	2,363	#	3	2,367	444	105	471	1,020	3,386	30
West Virginia	714	#	1	714	121	16	58	195	909	21
Wisconsin	2,231	#	15	2,246	372	54	340	765	3,012	25
Wyoming	209	#	#	209	15	6	33	54	263	20
Nationwide	117,975	38	491	118,503	23,000	3,957	16,769	43,726	162,230	27

# = Rounds to zero. \* Data withheld to maintain firm confidentiality.

Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

**Table 8.6**  
**Residential End-User Switched Access Lines and VoIP Subscriptions by State as of December 31, 2008**  
**(In Thousands)**

State	ILECs				Non-ILECs				Total	Non-ILEC % of Total
	Switched Access Lines	VoIP purchased as		Total	Switched Access Lines	VoIP purchased as		Total		
		Stand- alone	Bundled with Internet			Stand- alone	Bundled with Internet			
Alabama	1,174	#	#	1,174	102	55	90	247	1,422	17%
Alaska	147	0	0	147	*	1	*	*	*	*
American Samoa	5	0	0	5	0	0	0	0	5	0
Arizona	1,133	#	0	1,133	538	63	144	746	1,879	40
Arkansas	661	#	3	665	28	17	54	99	763	13
California	9,378	6	29	9,412	796	355	1,339	2,490	11,902	21
Colorado	1,209	0	0	1,209	27	76	279	382	1,591	24
Connecticut	917	1	23	940	64	41	317	421	1,361	31
Delaware	230	#	0	231	13	*	*	95	326	29
District of Columbia	168	#	0	168	19	10	22	50	218	23
Florida	4,680	4	0	4,684	115	346	1,049	1,510	6,195	24
Georgia	2,060	2	0	2,062	112	146	346	603	2,665	23
Guam	31	0	0	31	*	*	*	*	*	*
Hawaii	293	0	0	293	0	*	*	73	366	20
Idaho	380	#	#	380	21	9	26	56	437	13
Illinois	2,957	2	24	2,983	114	230	600	944	3,927	24
Indiana	1,616	1	16	1,633	72	70	207	348	1,981	18
Iowa	775	#	#	775	94	96	1	191	966	20
Kansas	542	#	6	548	120	22	119	261	808	32
Kentucky	933	#	0	934	153	23	171	347	1,281	27
Louisiana	1,005	#	0	1,005	106	39	145	291	1,296	22
Maine	400	#	2	402	13	*	*	115	517	22
Maryland	1,484	1	0	1,485	125	80	289	493	1,978	25
Massachusetts	1,440	1	0	1,441	96	126	627	848	2,289	37
Michigan	1,938	2	58	1,997	222	163	632	1,017	3,014	34
Minnesota	1,341	0	#	1,341	121	79	198	397	1,738	23
Mississippi	605	#	0	605	37	19	45	101	707	14
Missouri	1,603	1	#	1,604	47	59	172	278	1,882	15
Montana	250	0	0	250	16	7	43	66	317	21
Nebraska	334	#	#	334	126	9	32	167	502	33
Nevada	575	#	1	576	16	50	158	224	800	28
New Hampshire	331	0	0	331	7	30	133	171	501	34
New Jersey	2,135	1	0	2,136	149	105	961	1,215	3,352	36
New Mexico	507	#	#	507	12	13	27	52	559	9
New York	3,876	2	0	3,878	381	159	2,122	2,661	6,539	41
North Carolina	2,266	3	0	2,269	40	97	497	635	2,903	22
North Dakota	161	0	0	161	46	*	*	76	237	32
Northern Mariana Isl.	8	0	0	8	0	0	0	0	8	0
Ohio	2,740	1	22	2,764	194	62	720	975	3,739	26
Oklahoma	767	#	6	773	162	36	152	350	1,123	31
Oregon	886	#	0	886	20	45	200	265	1,151	23
Pennsylvania	3,568	1	0	3,569	196	174	622	992	4,561	22
Puerto Rico	589	0	0	589	2	7	74	84	673	12
Rhode Island	184	#	0	184	135	*	*	188	372	51
South Carolina	1,079	#	0	1,079	52	45	174	271	1,350	20
South Dakota	158	0	0	158	63	*	*	99	257	38
Tennessee	1,528	1	0	1,528	58	65	237	360	1,888	19
Texas	5,258	5	16	5,279	201	175	844	1,220	6,499	19
Utah	502	0	0	502	27	29	90	146	648	23
Vermont	207	0	0	207	7	*	*	40	246	16
Virgin Islands	41	0	0	41	0	*	*	*	*	*
Virginia	1,886	1	0	1,887	329	110	266	705	2,592	27
Washington	1,570	#	0	1,570	46	98	441	585	2,155	27
West Virginia	548	#	0	548	14	14	56	84	633	13
Wisconsin	1,356	#	12	1,369	101	50	316	467	1,836	25
Wyoming	113	0	#	113	6	6	31	42	156	27
Nationwide	72,531	36	218	72,785	5,643	3,572	15,419	24,634	97,419	25

# = Rounds to zero. \* Data withheld to maintain firm confidentiality.

Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

**Table 8.7**  
**Business End-User Switched Access Lines and VoIP Subscriptions by State as of December 31, 2008**  
**(In Thousands)**

State	ILECs				Non-ILECs				Total	Non-ILEC % of Total
	Switched Access Lines	VoIP purchased as		Total	Switched Access Lines	VoIP purchased as		Total		
		Stand- alone	Bundled with Internet			Stand- alone	Bundled with Internet			
Alabama	571	#	#	571	205	2	5	212	784	27%
Alaska	142	0	0	142	0	#	0	0	0	*
American Samoa	5	0	0	5	0	0	0	0	5	0
Arizona	714	#	#	714	417	10	31	458	1,172	39
Arkansas	357	0	#	357	115	2	8	125	481	26
California	6,896	#	37	6,933	1,668	58	321	2,047	8,980	23
Colorado	664	0	0	664	404	11	41	455	1,120	41
Connecticut	599	#	1	600	183	4	16	203	803	25
Delaware	149	#	1	149	66	0	0	69	218	31
District of Columbia	565	#	4	569	112	3	16	132	701	19
Florida	2,715	#	40	2,756	1,064	39	76	1,179	3,935	30
Georgia	1,404	#	2	1,406	511	13	31	554	1,960	28
Guam	23	0	0	23	0	0	0	0	0	*
Hawaii	218	#	0	219	40	0	0	41	259	16
Idaho	201	#	#	201	61	1	4	65	267	25
Illinois	2,325	#	34	2,359	624	16	62	702	3,061	23
Indiana	908	#	6	914	194	4	13	211	1,125	19
Iowa	338	#	#	339	104	1	12	117	455	26
Kansas	391	#	#	391	144	4	9	157	548	29
Kentucky	524	#	#	524	138	2	5	146	670	22
Louisiana	629	#	#	629	183	2	12	197	826	24
Maine	139	#	1	140	95	0	0	96	236	41
Maryland	1,096	#	7	1,103	337	8	16	361	1,464	25
Massachusetts	1,037	#	15	1,052	699	9	35	742	1,795	41
Michigan	1,506	#	9	1,515	384	14	26	425	1,940	22
Minnesota	581	0	#	581	433	5	37	475	1,056	45
Mississippi	358	0	#	358	75	2	4	80	438	18
Missouri	860	#	2	861	209	3	24	236	1,098	22
Montana	136	0	0	136	30	#	4	35	171	20
Nebraska	250	0	#	250	124	1	6	131	381	34
Nevada	396	#	#	396	172	4	14	190	586	32
New Hampshire	139	0	1	140	165	3	5	172	312	55
New Jersey	1,580	#	25	1,605	635	13	53	702	2,307	30
New Mexico	247	#	#	247	60	1	8	69	316	22
New York	2,658	#	20	2,679	1,683	32	135	1,850	4,529	41
North Carolina	1,246	#	5	1,251	422	9	18	450	1,700	26
North Dakota	80	0	0	80	34	0	0	37	117	32
Northern Mariana Isl.	9	0	0	9	0	0	0	0	9	0
Ohio	1,551	#	12	1,563	450	12	25	488	2,051	24
Oklahoma	443	0	#	443	156	3	10	170	613	28
Oregon	398	#	1	399	281	4	21	306	705	43
Pennsylvania	1,665	#	9	1,674	1,130	20	45	1,195	2,869	42
Puerto Rico	166	0	0	166	119	1	6	126	292	43
Rhode Island	108	#	#	108	124	0	0	128	237	54
South Carolina	546	#	4	550	191	5	5	201	751	27
South Dakota	93	0	0	93	35	0	0	41	134	31
Tennessee	769	#	#	769	368	5	18	391	1,160	34
Texas	3,376	#	18	3,394	1,041	25	64	1,130	4,523	25
Utah	275	0	0	275	108	3	13	123	398	31
Vermont	82	0	#	83	47	0	0	49	131	37
Virgin Islands	20	0	0	20	0	0	0	0	0	*
Virginia	1,368	#	9	1,378	686	12	24	722	2,100	34
Washington	793	#	3	796	398	7	30	435	1,231	35
West Virginia	166	#	1	166	106	2	2	110	277	40
Wisconsin	874	#	3	877	270	4	24	298	1,175	25
Wyoming	95	#	#	96	10	#	2	11	107	11
Nationwide	45,444	2	272	45,718	17,357	385	1,350	19,092	64,810	29

# = Rounds to zero. \* Data withheld to maintain firm confidentiality.

Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

Table 8.8

Non-ILEC Share of Total End-User Switched Access Lines and VoIP Subscriptions by State<sup>1</sup>

State	2005		2006		2007		2008	
	Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Alabama	16 %	15 %	16 %	13 %	13 %	14 %	16 %	21 %
Alaska	*	*	26	*	*	*	*	*
American Samoa	0	0	0	0	0	0	0	0
Arizona	27	30	30	32	33	34	37	39
Arkansas	13	11	12	13	14	14	14	18
California	18	13	13	14	14	14	15	22
Colorado	17	20	19	17	17	16	19	31
Connecticut	14	11	12	12	13	14	15	29
Delaware	20	20	18	18	19	17	18	30
District of Columbia	20	17	14	14	14	14	15	20
Florida	16	17	15	13	13	13	14	27
Georgia	21	18	19	14	16	16	17	25
Guam	NA	0	0	0	0	*	*	*
Hawaii	6	7	9	11	13	16	18	18
Idaho	10	10	11	10	11	11	11	17
Illinois	20	15	15	15	14	14	14	24
Indiana	14	10	10	10	9	9	11	18
Iowa	14	14	15	16	17	18	19	22
Kansas	25	21	24	23	25	26	28	31
Kentucky	14	15	16	15	16	19	18	25
Louisiana	19	17	18	16	17	18	21	23
Maine	20	20	16	16	17	20	24	28
Maryland	18	18	16	15	15	14	15	25
Massachusetts	25	25	24	24	23	24	25	39
Michigan	25	19	18	17	18	19	20	29
Minnesota	21	24	23	22	24	23	22	31
Mississippi	14	12	13	10	10	10	11	16
Missouri	14	11	13	13	14	14	15	17
Montana	8	10	12	14	16	18	19	21
Nebraska	25	26	27	28	29	30	31	34
Nevada	13	13	17	15	24	22	26	30
New Hampshire	25	25	24	23	23	23	25	42
New Jersey	22	21	17	18	17	17	18	34
New Mexico	8	7	8	8	8	8	9	14
New York	30	31	27	27	28	29	31	41
North Carolina	13	15	16	16	18	19	20	24
North Dakota	20	19	20	21	21	22	24	32
Northern Mariana Isl.	NA	0	0	0	0	0	0	0
Ohio	15	15	15	16	18	20	23	25
Oklahoma	18	18	20	21	23	25	27	30
Oregon	13	19	16	17	18	18	18	31
Pennsylvania	23	23	20	19	20	20	21	29
Puerto Rico	*	*	*	*	*	*	19	22
Rhode Island	40	42	43	46	47	48	50	52
South Carolina	13	13	15	14	16	17	19	22
South Dakota	30	33	33	30	30	31	32	36
Tennessee	16	17	18	15	16	17	18	25
Texas	19	16	16	17	16	17	18	21
Utah	23	22	24	21	22	20	21	26
Vermont	14	12	12	12	12	12	13	23
Virgin Islands	*	*	*	0	0	0	0	*
Virginia	21	22	21	22	22	23	23	30
Washington	14	14	14	14	15	14	16	30
West Virginia	12	12	12	13	13	14	16	21
Wisconsin	19	18	19	20	21	23	24	25
Wyoming	11	12	14	15	17	18	19	20
Nationwide	19 %	18 %	17 %	17 %	18 %	18 %	19 %	27 %

\* Data withheld to maintain firm confidentiality. NA is an abbreviation for not available.

<sup>1</sup> See footnote 1, Table 8.1.

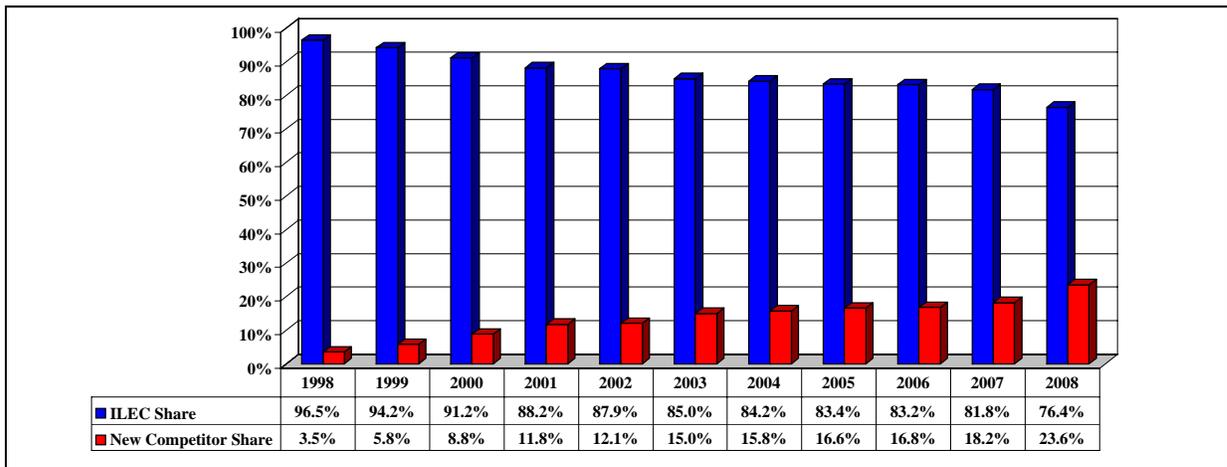
Source: Industry Analysis & Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010).

**Table 8.9**  
**Nationwide Local Service Revenues and New Competitors' Share<sup>1</sup>**  
**(Dollar Amounts Shown in Millions)**

	TRS & USF Data	FCC Form 499 Data									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Number of Local Competitors<sup>1</sup></b>											
RBOCs & Other Incumbent LECs	1,348	1,318	1,335	1,335	1,309	1,301	1,304	1,303	1,311	1,304	1,297
CAPs & CLECs	212	298	479	511	542	601	690	734	985	774	813
Local Resellers, Shared Tenant, Interconnected VoIP, Private Carriers, & Other Local All Other Carriers Reporting	64	96	128	158	186	172	228	885	649	538	649
<u>Local Exchange Service Revenues</u>	<u>133</u>	<u>143</u>	<u>229</u>	<u>168</u>	<u>176</u>	<u>179</u>	<u>186</u>	<u>188</u>	<u>211</u>	<u>206</u>	<u>210</u>
Total <sup>2</sup>	1,757	1,855	2,171	2,172	2,213	2,253	2,408	3,110	3,156	2,822	2,962
<b>Local Service Revenues<sup>3</sup></b>											
Incumbent LECs											
Bell Operating Companies	\$69,801	\$76,586	\$93,135	\$93,388	\$91,158	\$85,558	\$82,555	\$81,032	\$77,282	\$71,507	\$67,853
<u>Other Incumbent LECs</u>	<u>26,989</u>	<u>26,084</u>	<u>15,166</u>	<u>17,490</u>	<u>17,590</u>	<u>18,141</u>	<u>18,326</u>	<u>18,205</u>	<u>17,862</u>	<u>18,387</u>	<u>17,867</u>
Total	96,790	102,670	108,301	110,879	108,749	103,699	100,881	99,237	95,144	89,894	85,720
Local Service Competitors											
CAPs & CLECs	2,393	4,505	7,552	10,629	10,001	12,373	12,363	13,569	13,769	13,612	15,674
Local Resellers, Shared Tenant, Private Carriers, & Other Local All Other Filers (Local Exchange Service Revenues Only)	329	522	914	1,395	1,644	943	1,405	840	1,192	2,918	3,682
<u>Service Revenues Only</u>	<u>809</u>	<u>1,319</u>	<u>2,028</u>	<u>2,796</u>	<u>3,337</u>	<u>4,979</u>	<u>5,136</u>	<u>5,405</u>	<u>4,269</u>	<u>3,463</u>	<u>2,365</u>
Total	3,530	6,347	10,494	14,820	14,982	18,295	18,904	19,814	19,230	19,993	21,720
<b>Total</b>	<b>\$100,320</b>	<b>\$109,016</b>	<b>\$118,795</b>	<b>\$125,698</b>	<b>\$123,730</b>	<b>\$121,994</b>	<b>\$119,785</b>	<b>\$119,051</b>	<b>\$114,374</b>	<b>\$109,887</b>	<b>\$107,440</b>
<b>Share of Local Service Revenues</b>											
Incumbent LECs											
Bell Operating Companies	69.6%	70.3%	78.4%	74.3%	73.7%	70.1%	68.9%	68.1%	67.6%	65.1%	60.5%
<u>Other Incumbent LECs</u>	<u>26.9%</u>	<u>23.9%</u>	<u>12.8%</u>	<u>13.9%</u>	<u>14.2%</u>	<u>14.9%</u>	<u>15.3%</u>	<u>15.3%</u>	<u>15.6%</u>	<u>16.7%</u>	<u>15.9%</u>
Total	96.5%	94.2%	91.2%	88.2%	87.9%	85.0%	84.2%	83.4%	83.2%	81.8%	76.4%
Local Service Competitors											
CAPs & CLECs	2.4%	4.1%	6.4%	8.5%	8.1%	10.1%	10.3%	11.4%	12.0%	12.4%	14.0%
Local Resellers, Shared Tenant, Private Carriers, & Other Local Providers	0.3%	0.5%	0.8%	1.1%	1.3%	0.8%	1.2%	0.7%	1.0%	2.7%	3.3%
<u>All Other Filers</u>	<u>0.8%</u>	<u>1.2%</u>	<u>1.7%</u>	<u>2.2%</u>	<u>2.7%</u>	<u>4.1%</u>	<u>4.3%</u>	<u>4.5%</u>	<u>3.7%</u>	<u>3.2%</u>	<u>6.4%</u>
Total	3.5%	5.8%	8.8%	11.8%	12.1%	15.0%	15.8%	16.6%	16.8%	18.2%	23.6%
<b>Total Telecommunications Revenues</b> (Including Payphone, Mobile, & Toll Service)											
Incumbent LECs	\$108,234	\$112,216	\$116,158	\$117,885	\$114,999	\$109,480	\$105,496	\$103,561	\$99,997	\$93,885	\$89,732
Local Competitors	4,034	6,508	10,945	14,781	15,309	16,857	17,126	18,568	19,473	21,690	26,440
Ratio of ILEC Total Telecommunications Revenues to Local Competitor Total Telecommunications Revenues	27 : 1	17 : 1	11 : 1	8 : 1	8 : 1	6 : 1	6 : 1	6 : 1	5 : 1	4 : 1	3 : 1

See notes on following page.

**Chart 8.5**  
**ILEC and New Local Competitor Share of Local Service Revenue**



**Notes to Table 8.9.**

Note: Detail may not add to totals due to rounding. Data for 1993 through 1997 are available in prior year reports.

<sup>1</sup> Counts for incumbent LECs, CLECs, CAPs, local resellers, shared tenant service providers, private carriers and other local service providers are based on the numbers of filers actually reporting revenues. The category All Other Filers includes payphone, mobile service, and toll providers that reported local exchange service revenues. Non-incumbent LEC affiliates of incumbent LECs are classified as local service competitors, not as incumbent LECs.

<sup>2</sup> The total number of local service providers shown in Table 8.9 differs from the total fixed local service providers shown in Table 15.3 because the number shown in Table 8.9 represents filers that self identify as mobile or toll providers, and that report some end-user local exchange service revenues.

<sup>3</sup> For most categories of carriers for 1996, local service revenues include revenues from the following TRS reporting categories: local exchange, local private line, other local services, interstate access services, and intrastate access services. The amounts shown do not include pay telephone, mobile, or toll service revenues. See also footnote four. 1998 revenues for carriers that filed TRS worksheets but not universal service worksheets were estimated using 1998 TRS worksheets. These worksheets contain carrier revenue data for calendar year 1997.

Sources: Data filed on FCC Forms 431, 457, 499-Q and 499-A worksheets. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues*.

**Table 8.10**  
**Telephone Number Porting Activity Since Wireless Porting Started<sup>1</sup>**

Month	Landline to Landline (thousands)	Landline to Mobile (thousands)	Mobile to Mobile <sup>2</sup> (thousands)	Cellular/PCS to Landline	Total (thousands)
2003 November <sup>3</sup>	561	2	61	1	625
December	638	12	756	1	1,407
2004 January	809	24	713	1	1,547
February	711	65	591	2	1,369
March	776	79	632	1	1,488
April	718	49	613	1	1,381
May	756	73	689	1	1,519
June	789	165	873	2	1,829
July	656	143	806	3	1,608
August <sup>4</sup>	786	95	824	*	1,705
September	701	43	787	1	1,532
October	899	97	738	1	1,735
November	736	131	736	2	1,605
December	692	86	910	1	1,689
2005 January	698	53	808	2	1,561
February	936	81	735	1	1,753
March	1,257	74	815	2	2,148
April	959	55	797	1	1,812
May	892	56	862	1	1,811
June	1,064	38	1,153	2	2,257
July	1,006	62	982	2	2,052
August	1,203	42	933	2	2,179
September	1,114	31	835	2	1,982
October	991	37	866	2	1,896
November	1,023	29	826	2	1,880
December	1,079	22	1,031	2	2,135
2006 January	1,242	37	879	4	2,162
February	1,347	22	807	3	2,178
March	1,422	19	876	2	2,319
April	1,095	19	747	2	1,863
May	1,213	46	813	2	2,073
June	1,010	30	862	2	1,904
July	960	55	866	1	1,883
August	1,111	61	953	2	2,127
September	941	36	839	2	1,818
October	1,049	33	823	2	1,908
November	907	40	812	3	1,762
December	977	41	993	2	2,013
2007 January	902	31	1,021	2	1,956
February	864	45	1,049	2	1,960
March	1,035	40	1,155	2	2,232
April	926	33	1,112	2	2,072
May	973	45	1,083	3	2,103
June	1,026	82	1,095	3	2,207
July	1,288	124	1,136	3	2,550
August	1,440	149	1,135	5	2,728
September	1,235	90	1,012	3	2,340
October	1,539	93	1,027	2	2,661
November	1,302	111	1,187	3	2,603
December	2,500	53	1,274	2	3,829
2008 January	1,293	19 <sup>5</sup>	1,102	3	2,418
February	1,220	24	1,079	2	2,326
March	1,473	19	1,085	4	2,582
April	1,420	21	987	3	2,430
May	1,232	22	1,069	3	2,326
June	1,176	19	1,113	2	2,311
July	1,289	39	1,383	3	2,715
August	1,410	48	1,410	4	2,873
September	1,207	47	1,212	4	2,471
October	1,332	39	1,258	5	2,634
November	1,107	59	1,213	4	2,382
December	1,257	36	1,513	4	2,810
2009 January	1,112	33	1,334	4	2,483
February	1,112	33	1,334	4	2,483
March	1,262	43	1,389	5	2,698
April	1,232	38	1,184	5	2,459
May	1,295	36	1,203	5	2,539
June	1,317	39	1,415	4	2,775
July	1,333	40	1,445	5	2,823
August	1,304	44	1,397	5	2,750
September	1,336	131	1,292	5	2,764
Cumulative Total	77,474	3,811	70,345	180	151,811

\* Indicates a number between 1 and 499.

<sup>1</sup> Monthly figures include numbers that were ported back to the original carrier, or where the subscriber with the ported number terminated service.

<sup>2</sup> Excludes significant porting activity between Cingular and AT&T Wireless following the closing of their merger in October 2004.

<sup>3</sup> Wireless porting started November 24, 2003. These figures include all ports during the month of November, which for ports from or to a wireless carrier, include a small number of test ports that happened prior to November 24.

<sup>4</sup> Due to a data problem, does not include numbers that were ported back to the original carrier, or where the subscriber with the ported number terminated service.

<sup>5</sup> In late 2007, some wireline carriers completed plans to transfer groups of numbers to the wireless carriers that were providing service to end users using those numbers. In many cases, the whole block could not be reassigned in the Local Exchange Routing Guide so number porting was used to effectuate the transfer.

Source: Raw data from Local Number Portability Administrator (NeuStar, Inc.). Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

**Table 8.11**  
**Telephone Numbers Remaining in the Porting Database at the End of Each Quarter<sup>1</sup>**

Year	Quarter	Landline to	Landline to	Mobile to	Mobile to	Total
		Landline	Mobile	Mobile <sup>2</sup>	Landline	
		(thousands)		(thousands)		(thousands)
1999	Second	1,840	*	*	*	1,840
	Third	2,658	*	*	*	2,658
	Fourth	3,854	*	*	*	3,854
2000	First	5,029	*	*	*	5,029
	Second	5,781	*	*	*	5,781
	Third	7,595	*	*	*	7,595
	Fourth	9,146	*	*	*	9,146
2001	First	10,567	*	*	*	10,567
	Second	12,310	*	*	*	12,310
	Third	14,610	*	*	*	14,610
	Fourth	15,519	*	*	*	15,519
2002	First	16,810	*	*	*	16,810
	Second	18,210	*	*	*	18,210
	Third	19,862	*	*	*	19,862
	Fourth	21,449	*	*	*	21,449
2003	First	22,781	*	*	*	22,781
	Second	23,723	*	*	*	23,723
	Third	24,796	*	*	*	24,796
	Fourth	25,869	16	795	2	26,682
2004	First	28,462	173	2,686	3	31,324
	Second	28,371	406	4,635	4	33,417
	Third	29,396	667	6,874	9	36,945
	Fourth	30,607	832	9,041	11	41,491
2005	First	32,399	1,001	10,860	16	44,276
	Second	34,136	1,092	12,926	19	48,173
	Third	35,959	1,201	14,327	23	51,510
	Fourth	37,607	1,226	16,101	29	54,963
2006	First	40,194	1,272	17,577	34	59,077
	Second	42,130	1,333	19,032	42	62,538
	Third	43,743	1,407	20,509	46	65,705
	Fourth	45,149	1,480	21,920	50	68,600
2007	First	46,761	1,541	23,518	50	71,870
	Second	48,396	1,659	25,399	54	75,508
	Third <sup>3</sup>	50,222	2,057	27,068	116	79,463
	Fourth	53,168	2,031	29,065	120	84,384
2008	First	55,095	2,075	30,605	127	87,902
	Second	56,114	2,067	32,024	153	90,359
	Third	57,217	2,175	34,089	156	93,637
	Fourth	58,924	2,255	35,851	171	97,202
2009	First	60,609	2,353	37,663	177	100,801
	Second	62,508	2,433	39,221	182	104,344
	Third	64,333	2,539	40,522	181	107,576

\* Wireless portability started November 24, 2003. A small number of test ports were conducted before then.

<sup>1</sup> Numbers ported because customer changed carriers. The database contains the date when the telephone number record was last updated. For most telephone numbers, this was the most recent port. For those telephone numbers affected by area code changes, however, the date refers to when the record was updated to reflect the new area code. See the text for a fuller discussion.

<sup>2</sup> Excludes significant porting activity between Cingular and AT&T Wireless following the closing of their merger.

<sup>3</sup> Starting with the July 2007 data, the method of determining whether a port came from a wireline or wireless carrier changed. For numbers that have been ported multiple times, the original carrier is now used to determine the porting carrier's type. Previously, the porting carrier's type was based on the most recent port.

Source: Raw data from Local Number Portability Administrator (NeuStar, Inc.). Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

**Table 8.12**  
**Numbers in the Porting Database by Quarter in Which They Were Most Recently Ported<sup>1</sup>**  
**March 31, 2009<sup>2</sup>**

Ported During Year	Quarter	Landline to Landline	Landline to Mobile	Mobile to Mobile	Mobile to Landline
		(thousands)		(thousands)	
1998	First	0 <sup>3</sup>	*	*	*
	Second	3	*	*	*
	Third	36	*	*	*
	Fourth	110	*	*	*
1999	First	192	*	*	*
	Second	302	*	*	*
	Third	313	*	*	*
	Fourth	396	*	*	*
2000	First	422	*	*	*
	Second	483	*	*	*
	Third	602	*	*	*
	Fourth	672	*	*	*
2001	First	594	*	*	*
	Second	754	*	*	*
	Third	770	*	*	*
	Fourth	957	*	*	*
2002	First	792	*	*	*
	Second	892	*	*	*
	Third	1,055	*	*	*
	Fourth	890	*	*	*
2003	First	806	*	*	*
	Second	974	*	*	*
	Third	971	*	*	*
	Fourth	954	8	321	2
2004	First	1,302	110	711	3
	Second	1,313	99	827	8
	Third	1,325	159	992	7
	Fourth	1,275	101	1,033	5
2005	First	1,543	78	999	4
	Second	1,643	69	1,096	3
	Third	1,857	90	1,272	4
	Fourth	1,681	61	1,305	13
2006	First	2,442	51	1,293	4
	Second	1,981	65	1,350	4
	Third	1,771	117	1,569	5
	Fourth	1,760	97	1,635	5
2007	First	1,909	93	1,713	5
	Second	2,156	134	1,867	4
	Third	2,739	249	2,230	24
	Fourth	4,292	223	2,556	9
2008	First	3,018	70 <sup>4</sup>	2,451	8
	Second	3,065	76	2,452	7
	Third	3,189	129	3,290	7
	Fourth	3,207	138	3,307	8
2009	First	3,052	127	2,974	8
	Second	3,335	127	3,052	7
	Third	3,572	236	3,645	9

\* Wireless portability started November 24, 2003. A small number of test ports were conducted before then. NeuStar supplies information indicating which carriers are wireless and which are wireline. Occasionally, a carrier that had been identified as a wireline carrier is later identified as a wireless carrier, and vice-versa.

<sup>1</sup> Numbers ported because customer changed carriers.

<sup>2</sup> The local number portability database was designed solely for the purpose of routing calls. As such, it retains only the most recent porting activity for any given number. So if a consumer ports a number from Carrier A to Carrier B, and later the consumer then ports the number from Carrier B to Carrier C, the database will not reflect the original port from Carrier A to Carrier B. Also, numbers that revert back to the original carrier (either because the customer ports the number back to the original carrier or because the customer discontinues service with that number) are dropped from the database. Lastly, area code splits can make a number appear to be ported later than it actually was.

<sup>3</sup> Number is between 0 and 499.

<sup>4</sup> In late 2007, some wireline carriers completed plans to transfer groups of numbers to the wireless carriers that were providing service to end users using those numbers. In many cases, the whole block could not be reassigned for routing purposes in the Local Exchange Routing Guide (LERG) so number porting was used to effectuate the transfer.

Source: Raw data from Local Number Portability Administrator (NeuStar, Inc.). Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau.

## **9 Long Distance Telephone Industry**

Until the 1970s, AT&T had a virtual monopoly on long distance service in the United States. In the 1970s, competitors such as MCI and Sprint began also to offer long distance service. With the gradual emergence of competition, basic rates dropped, calling surged, and AT&T's dominance declined.

More than 1,900 toll companies now offer long distance service of which more than 1,400 are wireline carriers. These carriers remain subject to the Commission's jurisdiction. The Commission, however, has chosen to rely on competition, rather than regulation, as much as possible. Thus, the Commission forbears from regulating most aspects of long distance service.

### **1. Toll Revenues**

In 2008, telecommunications companies generated \$59.9 billion in toll revenues. These include toll revenues from long distance carriers, wireless toll from wireless carriers, and toll revenues from local exchange carriers. These revenues are shown in Table 9.1. Table 9.1 also shows the share of toll revenues by the five largest and the next twenty largest providers. The trend is for smaller firms to have a greater share of industry toll revenues.

Toll calls can be divided into three jurisdictional categories - intrastate calls, domestic interstate calls, and international calls. The revenues, from 1980 through 2007, for each of the three jurisdictional categories are shown in Table 9.2.

Toll revenues also can be divided between residential and nonresidential services, as in Table 9.3. In 2007, residential customers generated 30% of all end-user toll revenues.

### **2. Number of Companies**

The number and types of carriers reporting long distance revenues are shown in Table 9.4. The Telecommunications Reporting Worksheet (FCC Form 499-A) requires each filer to select up to five of 20 categories that best describe its primary lines of business. Six of these categories consist of carriers that are primarily engaged in providing long distance service and are collectively described as being toll carriers: interexchange carriers (IXCs), operator service providers (OSPs), other toll service providers, prepaid calling card providers, satellite service providers, and toll resellers. Additional information on the FCC Form 499-A has been used to categorize some filers as Voice Over Internet Protocol (VoIP) Toll providers and as Audio Bridge Service Providers.

In 2008, 1,418 filers were categorized using one of the above toll service provider categories.

Prior to 1986, carrier identification codes (CICs) provided information on the number of firms seeking to acquire certain types of interconnecting arrangements with local telephone companies. Beginning in 1986, a number of corporations, government agencies and other organizations began to acquire carrier identification codes for their own use, rather than for the purpose of providing telecommunications services to others. After that time, the use of such codes to estimate the number of long distance carriers became less reliable. The number of codes assigned over time can be found in the long distance section of the May 2004 *Trends* report which can be accessed at [www.fcc.gov/wcb/stats.html](http://www.fcc.gov/wcb/stats.html).

CICs are currently assigned by the North American Numbering Plan Administration (NANPA), which is part of Neustar, Inc. Further information on such codes can be found on the Internet at [www.nanpa.com](http://www.nanpa.com).

### **3. Long Distance Market Shares**

A generation ago, before the breakup of the Bell System, AT&T's local telephone companies provided local service to most of the United States. At the beginning of 1984, however, AT&T's local operating companies were divested in the settlement of an antitrust case.

After the AT&T divestiture, AT&T's former operating companies were restricted to providing service within their own local access and transport areas (LATAs), i.e., they were precluded from offering toll service that crossed LATA boundaries. As a result, two separate and distinct toll markets emerged.

In the first, AT&T competed with small but rapidly growing competitors for calls that crossed LATA boundaries. This market included almost all interstate and international calls and a large number of intrastate toll calls as well. A second and much smaller market consisted of short distance toll calls that did not cross LATA boundaries. This second market was dominated, at least initially, by the local exchange carriers operating within their own service territories.

Over time, the distinctions between the two markets have become blurred as customers acquired the ability to select among competing carriers for their intraLATA calls as well as their interLATA calls. As discussed in greater detail in the following section, the 1996 Telecommunications Act established a procedure for Bell companies to offer in-region, interLATA long distance service after complying with certain preconditions to open their own markets.

Bill Harvesting® data collected by TNS Telecoms (TNS) are used to calculate residential market shares. Further information on TNS and its Bill Harvesting® data can be found in Section 14 and in Appendix B. Table 9.5, which is based on this information, presents nationwide market shares of households, and directly dialed intraLATA and interLATA minutes from 1995 to 2008. Chart 9.2 shows the residential household market shares for the largest carriers for 2008. Table 9.6 presents market shares by region for 2008. Chart 9.3 shows residential market shares for the largest carriers for the northeast and southwest regions for 2008.

#### **4. Section 271 Applications**

Section 271 of the Communications Act required the regional Bell operating companies (RBOCs) to apply to the Commission, on a state-by-state basis, for authorization to provide in-region interLATA services. To obtain such authorization pursuant to section 271, the RBOC had to demonstrate that it satisfied the 14-point competitive checklist, that it complied with the separate affiliate and nondiscrimination requirements of section 272, and that the requested authorization was consistent with the public interest, convenience, and necessity. After a section 271 application was filed with the Commission, the Commission had 90 days to determine whether the RBOC had taken the statutorily required steps to open its local telecommunications markets to competition.

A RBOC applicant had to demonstrate either that: A) one or more unaffiliated competing providers of local telephone service to residential and business subscribers was connected to the RBOC's network, and that such local telephone service was being "offered by such competing providers either exclusively over their own telephone exchange service facilities or predominately over their own telephone exchange service facilities in combination with the resale of the telecommunications services of another carrier" (commonly referred to as "Track A"); or B) if no potential competing provider had requested to connect to a RBOC's network, the RBOC had a statement of generally available terms and conditions in place demonstrating that it is ready to allow potential competitors to connect to its facilities (commonly referred to as "Track B").

On December 22, 1999, the first regional Bell operating company's application (Bell Atlantic, now known as Verizon) was approved by the Commission to provide in-region interLATA service in the state of New York. On December 3, 2003, the final Bell operating company's application (Qwest) was approved to provide in-region interLATA service in the state of Arizona. Table 9.7 shows the states in which the BOCs filed section 271 applications, the Bell operating company's name, and the application's resolution date.

The companies approved must continue to comply with the section 271 requirements. The Commission has a number of enforcement tools at its disposal, including imposing penalties or suspension of approval.

**Table 9.1 -- Toll Service Revenues <sup>1/</sup> by Provider <sup>2/</sup>**  
**(Revenue Amounts Shown in Millions)**

	2000	2001	2002	2003	2004	2005	2006	2007	2008
	<b>Totals for the five companies that report the most toll revenue</b>								
Total Toll Revenue	\$81,546	\$73,486	\$59,864	\$52,172	\$46,511	\$46,599	\$45,015	\$42,907	\$37,070
Percentage of total U.S. End User Toll Revenue	74.4%	74.0%	71.5%	67.6%	65.3%	67.3%	69.9%	66.2%	61.9%
	<b>Totals for the next twenty companies that report the most toll revenue</b>								
Revenue	\$17,024	\$15,122	\$13,808	\$13,837	\$13,534	\$10,683	\$7,991	\$8,753	\$8,867
Percentage of total	15.5%	15.2%	16.5%	17.9%	19.0%	15.4%	12.4%	13.5%	14.8%
	<b>Totals for all other companies</b>								
Revenue	\$11,045	\$10,722	\$10,026	\$11,179	\$11,168	\$11,968	\$11,373	\$13,142	\$13,973
Percentage of total	10.1%	10.8%	12.0%	14.5%	15.7%	17.3%	17.7%	20.3%	23.3%
	<b>Totals for all companies</b>								
Total Service Revenue	\$109,615	\$99,053	\$83,697	\$77,188	\$71,214	\$69,250	\$64,379	\$64,802	\$59,910
Companies reporting toll service revenue	1,401	1,715	1,668	1,835	2,173	2,117	1,811	2,058	2,393
<b>2000</b>	<b>Five companies reporting the most toll service revenue:</b> AT&T Communications; Qwest Services Corp.; SBC Communications, Inc.; Sprint Corp.; WorldCom, Inc.								
	<b>Next twenty:</b> ALLTEL Corp.; Atlas Telecommunications S.A.; BCE, Inc. (Bell Canada Enterprises); BellSouth Corporation; Broadwing, Inc.; Cable & Wireless Holdings, Inc.; Global Crossing, Ltd.; IDS Telcom, LLC; IDT Corp.; Intermedia Communications, Inc.; McLeod USA Inc.; Pacific Gateway Exchange, Inc.; Primus Telecommunications Group, Inc.; Star Telecommunications; Talk.com, Inc.; VarTec Telecom, Inc.; Verizon; Viatel, Inc.; Williams Communications Group, Inc.; World Access, Inc.								
<b>2001</b>	<b>Five companies reporting the most toll service revenue:</b> AT&T Communications; SBC Communications, Inc.; Sprint Corp.; Verizon Communications, Inc.; WorldCom, Inc.								
	<b>Next twenty:</b> ALLTEL Corp.; BellSouth Corp.; Broadwing, Inc.; Cable & Wireless USA, Inc.; Citizens Communication; Empresa Nacional de Telecomunicaciones SSA; Global Crossing; IDT Corp.; ITC^DeltaCom, Inc.; McLeodUSA, Inc.; Network Plus Corp.; Nextel Communications, Inc.; Pacific Gateway Exchange, Inc.; Primus Telecommunications Group, Inc.; Qwest Services Corp.; Star Telecommunications, Inc.; Touch America Holdings, Inc.; VarTec Telecom; WilTel Communications Group, Inc.; World Access, Inc.								
<b>2002</b>	<b>Five companies reporting the most toll service revenue:</b> AT&T Communications; SBC Communications, Inc.; Sprint Corp.; Verizon Communications, Inc.; WorldCom, Inc.								
	<b>Next twenty:</b> ALLTEL Corp.; BellSouth Corp.; Broadwing, Inc.; Cable & Wireless USA, Inc.; CenturyTel, Inc.; Cincinnati Bell, Inc.; Citizens Communications; Comcast Corp.; Empresa Nacional de Telecomunicaciones SSA; Evercom, Inc.; Global Crossing North American Holdings, Inc.; IDT Corp.; ITC^DeltaCom, Inc.; McLeod USA Inc.; Qwest Services Corp.; Telco Group, Inc.; Touch America Holdings, Inc.; VarTec Telecom, Inc.; WilTel Communications Group, Inc.; XO Communications, Inc.								
<b>2003</b>	<b>Five companies reporting the most toll service revenue:</b> AT&T Communications; MCI, Inc.; SBC Communications, Inc.; Sprint Corp.; Verizon Communications, Inc.								
	<b>Next twenty:</b> ALLTEL Corp.; BellSouth Corp.; Broadwing Corp.; CenturyTel, Inc.; Cincinnati Bell, Inc.; Citizens Communications; Evercom, Inc.; Global Crossing North America, Inc.; IDT Corporation; ITC^DeltaCom, Inc.; McLeod USA Inc.; Primus Telecommunications Group, Inc.; Qwest Services Corp.; Telco Group, Inc.; Teleglobe Netherlands Holdings B.V.; Telenor Global Services AS; T-Mobile USA, Inc.; VarTec Telecom, Inc.; WilTel Communications Group, Inc.; XO Communications, Inc.								

**Table 9.1 -- Toll Service Revenues <sup>1/</sup> by Provider <sup>2/</sup> -- Continued**

<b>2004</b>	<p><b>Five companies reporting the most toll service revenue:</b> AT&amp;T Corp.; SBC Communications, Inc.; Sprint Corporation; Verizon Communications Inc.; WorldCom, Inc.;</p> <p><b>Next twenty:</b> ALLTEL Corporation; BellSouth Corporation; Broadwing Communications, LLC; CenturyTel, Inc.; Citizens Communications Company; Deutsche Telekom AG; Evercom, Inc.; Excel Telecommunications, Inc.; Global Crossing North America, Inc.; GTE Corporation; IDT Corporation; ITC^DeltaCom, Inc.; McLeod USA Inc.; Primus Telecommunications Group, Inc.; Qwest Services Corp.; Telco Group, Inc. (Really Verizon Wireless?); Teleglobe Netherlands Holdings B.V.; Telenor Global Services AS; VarTec Telecom, Inc. ; WilTel Communications Group, Inc.;</p>
<b>2005</b>	<p><b>Five companies reporting the most toll service revenue:</b> AT&amp;T, Inc.; Qwest Services Corp.; SBC Long Distance, LLC; Sprint Nextel Corporation; Verizon Communications, Inc.;</p> <p><b>Next twenty:</b> ALLTEL Corporation; BellSouth Corporation; Broadwing Corporation; BT United States LLC; CenturyTel, Inc.; Deutsche Telekom AG; Dialaround Enterprises, Inc.; Epana Networks; Global Crossing North America, Inc.; IDT Corporation; ITC DeltaCom, Inc.; Level 3 Financing, Inc.; Locus Telecommunications, Inc.; New Cingular Wireless Services, Inc. ; Pacific Gateway Exchange, Inc.; Reliance Infocomm Ltd.; T-NETIX, INC.; VarTec Telecom, Inc.; Videsh Sanchar Nigam Limited; WilTel Communications Group, Inc.;</p>
<b>2006</b>	<p><b>Five companies reporting the most toll service revenue:</b> AT&amp;T Inc.; Level 3 Financing, Inc.; Qwest Services Corp.; Sprint Nextel Corporation; Verizon Communications, Inc.;</p> <p><b>Next twenty:</b> ALLTEL Corporation; CenturyTel, Inc.; Comcast Corporation; CoxCom, Inc.; Deutsche Telekom AG; Embarq Corporation; Epana Networks; Global Crossing ; Gtel Holdings, Inc.; iBasis, Inc.; IDT Telecom, Inc.; Locus Telecommunications, Inc.; Reliance Infocomm Ltd.; Telecom Corporation of New Zealand LTD; T-NETIX, INC.; Touch-Tel USA, LLC; VarTec Telecom, Inc.; Videsh Sanchar Nigam Limited; Windstream Corp.; XO Communications, Inc.;</p>
<b>2007</b>	<p><b>Five companies reporting the most toll service revenue:</b> AT&amp;T, Inc; Level 3 Financing, Inc.; Qwest Services Corp.; Sprint Nextel Corporation; Verizon Communications, Inc.;</p> <p><b>Next twenty:</b> Atlantis Holdings; CenturyTel, Inc.; Comcast Corporation; CoxCom, Inc.; Deutsche Telekom AG; Dollar Phone Corp.; Embarq Corporation; Epana Networks; Global Crossing ; Gtel Holdings, Inc.; iBasis, Inc.; IDT Telecom, Inc.; Locus Telecommunications, Inc.; Reliance Infocomm Ltd.; STi Prepaid, LLC; Telecom Corporation of New Zealand LTD; T-NETIX, INC.; Touch-Tel USA, LLC; Videsh Sanchar Nigam Limited; Windstream Corp.;</p>
<b>2008</b>	<p><b>Five companies reporting the most toll service revenue:</b> AT&amp;T, Inc; Level 3 Financing, Inc.; Qwest Services Corp.; Sprint Nextel Corporation; Verizon Communications, Inc.;</p> <p><b>Next twenty:</b> BT United States LLC; CenturyTel, Inc.; Comcast Corporation; CoxCom, Inc.; Deutsche Telekom AG; Dollar Phone Corp.; Embarq Corporation; Epana Networks; Global Crossing ; Gtel Holdings, Inc.; iBasis, Inc.; IDT Telecom, Inc.; Locus Telecommunications, Inc.; MetroPCS Communications, Inc.; Reliance Infocomm Ltd.; STi Prepaid, LLC; Telecom Corporation of New Zealand LTD; T-NETIX, INC.; Videsh Sanchar Nigam Limited; Windstream Corp.;</p>

1/ Toll revenues consist of carrier's carrier revenues reported on the FCC Form 499-A Lines 310 through 314; end user revenues reported on Lines 404.2 and 411 through 417; and a portion of USF pass-through revenue reported on Line 403.

2/ Filings of affiliated companies have been consolidated to create this table. Companies are treated as affiliated if they were known to be affiliated on December 31. The annual *Telecommunications Provider Locator* reports are one source of information showing which filers are treated as affiliates. For the purpose of this table, revenues for Cingular were divided between Bell South and SBC in proportion to their ownership interest. Revenues for CellCo Partnership historically were consolidated with Verizon.

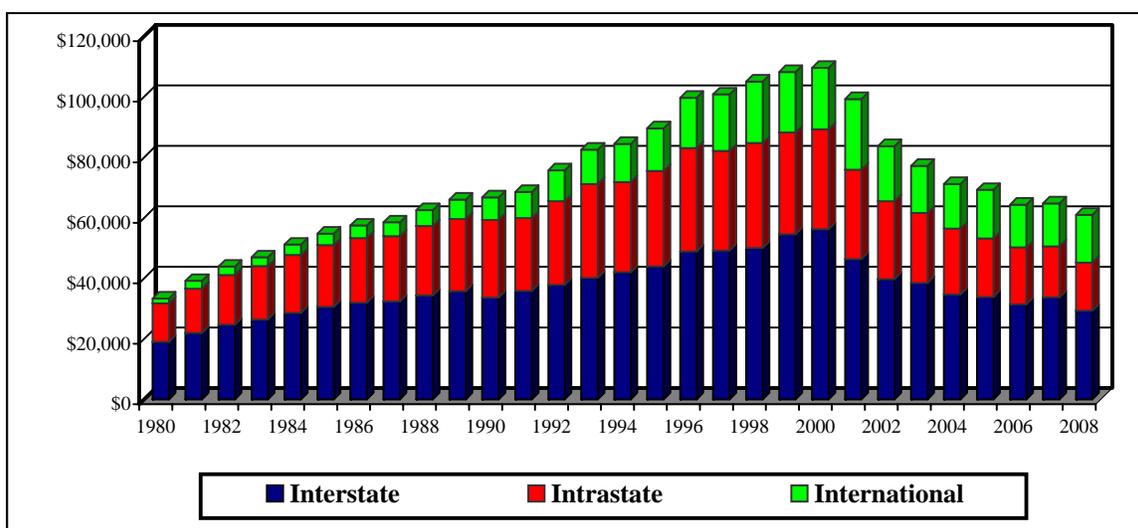
Source: Data filed on FCC Form 499A and press reports. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Provider Locator*.

**Table 9.2**  
**Intrastate, Interstate, and International Toll Revenues**  
(Dollar Amounts Shown in Millions)

Year	Toll Revenues				End-User Revenues			
	Intrastate	Interstate	International	Total Toll Revenues	Intrastate	Interstate	International	Total Toll Revenues
1980	\$12,700	\$19,049	\$1,586	\$33,335			\$1,475	
1981	14,632	21,948	2,599	39,180			2,485	
1982	16,457	24,685	2,777	43,919			2,651	
1983	17,612	26,418	2,940	46,970			2,802	
1984	19,077	28,616	3,463	51,156			3,309	
1985	20,408	30,613	3,794	54,815			3,636	
1986	21,340	32,010	4,119	57,468			3,947	
1987	21,563	32,345	4,611	58,519			4,436	
1988	22,900	34,350	5,350	62,600			5,146	
1989	23,850	35,775	6,399	66,024			6,340	
1990	25,622	33,678	7,492	66,792			7,390	
1991	24,090	35,837	8,631	68,558			8,480	
1992	27,667	37,871	10,207	75,744			9,810	
1993	30,950	40,212	11,364	82,525			10,901	
1994	29,815	42,028	12,635	84,478			12,100	
1995	31,519	43,955	14,155	89,629			13,144	
1996	34,181	48,903	16,607	99,691			15,023	
1997	32,859	49,247	18,688	100,793	\$30,144	\$43,640	15,409	\$89,193
1998	34,699	50,000	20,356	105,055	30,800	44,153	16,654	91,607
1999	33,600	54,590	20,056	108,246	29,976	47,598	15,737	93,311
2000	33,030	56,225	20,361	109,615	28,501	42,980	16,286	87,767
2001	29,530	46,389	23,381	99,301	25,891	36,660	16,751	79,302
2002	25,772	39,725	18,200	83,697	22,122	31,707	13,392	67,222
2003	23,160	38,501	15,527	77,188	18,889	28,088	12,006	58,983
2004	21,748	34,664	14,802	71,214	17,762	27,487	10,262	55,511
2005	19,397	33,839	16,014	69,250	15,489	26,811	10,238	52,538
2006	18,791	31,420	14,168	64,379	15,415	25,164	8,699	49,278
2007	16,874	33,728	14,200	64,802	13,535	27,237	7,937	48,709
2008	15,962	29,292	15,734	60,988	13,223	25,021	8,121	46,365

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues*, International Bureau, *Trends in the U.S. International Telecommunications Industry and International Traffic Data*, 47 CFR § 43.21(c) data through 1991. Through 1996, some breakouts based on staff estimates.

**Chart 9.1**  
**Toll Revenues by Market Segment**  
(Dollar Amounts Shown in Billions)



**Table 9.3**  
**End-User Toll Revenues**  
**(Dollar Amounts Shown in Millions)**

Year	Residential Toll as a Percentage of all End-User Toll Revenues <sup>1/</sup>	End-User Toll Revenues <sup>2/</sup>	End-User Toll Revenues By Customer Type	
			Residential	Other
1995	48 %	\$75,638	\$36,425	\$39,213
1996	47	82,616	39,187	43,430
1997	47	89,193	41,766	47,427
1998	45	91,607	41,401	50,205
1999	44	93,311	40,784	52,527
2000	40	87,767	35,440	52,327
2001	37	79,302	29,584	49,718
2002	38	67,222	25,284	41,938
2003	39	58,983	23,190	35,793
2004	37	55,511	20,329	35,182
2005	33	52,538	17,588	34,950
2006	31	49,278	15,364	33,914
2007	30	48,709	14,808	33,901
2008	30	46,365	13,969	32,396

Note: Data for all years were revised.

1/ Staff estimates are based on market segment data in carrier annual reports to shareholders; average household payments to long distance carriers shown in Table 3.2; and residential toll revenues published by the U.S. Census Bureau in the *Service Annual Survey: Table 3.3.7*; Bureau Of Economic Analysis, *National Economic Accounts, Table 2.4.5U. Personal Consumption Expenditures by Type of Product*; and previous reports.

2/ Toll services are telecommunications services that enable customers to communicate outside of local exchange calling areas. Toll service revenues include revenues from ordinary long distance, subscriber toll-free, operator service, prepaid calling card, long distance private line, satellite services, and other long distance services. End-user toll revenues consist of toll service revenues from end-user customers, governments, non-profits, *de minimis* resellers, and any other customer that does not contribute directly to universal service.

Source: End-user toll revenues for 1997 through 2008 are taken from Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* current and previous editions. The breakout between Residential and Other, and total end-user toll revenues for 1995 and 1996, are staff estimates.

**Table 9.4  
Number of Toll Service Providers**

	TRS & USF Data		FCC Form 499-A Data									
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Carriers That Provide Toll Service 1/</b>												
Toll Carriers												
Interexchange Carriers (IXCs)	151	171	178	212	233	229	232	257	262	270	250	272
Other Toll Carriers												
Operator Service Providers (OSPs)	32	24	15	20	19	18	17	19	23	24	23	24
Pre-paid Calling Card Providers	18	20	18	23	27	27	50	67	69	85	93	127
Satellite Service Providers	13	13	17	25	34	33	40	40	40	39	41	42
Toll Resellers	340	388	406	493	558	574	642	751	721	744	693	727
VoIP Toll Providers											12	91
Audio Bridge Service Providers												69
Other Toll Carriers	<u>15</u>	<u>31</u>	<u>17</u>	<u>35</u>	<u>69</u>	<u>51</u>	<u>45</u>	<u>70</u>	<u>63</u>	<u>76</u>	<u>80</u>	<u>66</u>
Total Toll Service Providers	569	647	651	808	940	932	1,026	1,204	1,178	1,267	1,192	1,418
Fixed Local Service, Payphone, and Mobile Service Filers with Toll Service Revenues	1,537	1,740	1,870	1,678	1,884	1,602	1,678	1,680	1,879	1,937	1,952	1,961
<b>All Toll Service Providers 2/</b>	<b>2,106</b>	<b>2,387</b>	<b>2,521</b>	<b>2,486</b>	<b>2,824</b>	<b>2,534</b>	<b>2,704</b>	<b>2,884</b>	<b>3,057</b>	<b>3,204</b>	<b>3,144</b>	<b>3,379</b>

Note: Some data have been revised. Data for 1992 through 1996 are available in prior year reports.

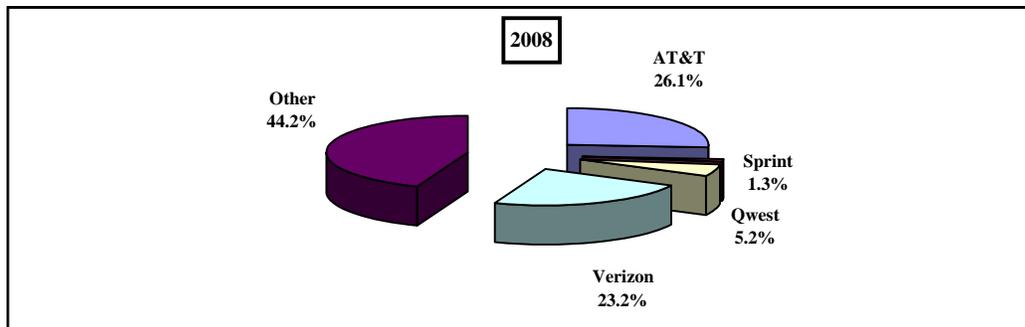
- 1/ Counts of toll carriers represent the numbers of filers that reported telecommunications revenues and that identified themselves using a toll carrier category. Filers that identified themselves as Fixed Local Service, Payphone, and Mobile Service providers were counted as toll providers only if they reported toll service revenues.
- 2/ Toll carrier counts in Table 9.4 differ from toll carrier counts in Table 9.1 for two reasons. Counts in this table include firms that identify themselves as toll carriers even if they reported only non-toll telecommunications revenues. In addition, counts in this table were made by filing entity whereas Table 9.1 consolidates affiliated filers. Toll carrier counts also differ from toll carrier counts in Table 5.3. Table 5.3 includes companies that made an FCC Form 499-A filing for registration purposes but that had not yet reported revenues.

Sources: Data filed on FCC Forms 431, 457, and 499-A worksheets. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* and *Telecommunications Provider Locator*.

**Table 9.5**  
**Residential Household Market Shares**  
**(1995 - 2008)**

	AT&T <sup>1</sup>	MCI <sup>2</sup>	Sprint <sup>3</sup>	BellSouth <sup>4</sup>	Qwest <sup>5</sup>	SBC <sup>6</sup>	Verizon <sup>7</sup>	Other <sup>8</sup>
<b>Households<sup>9</sup></b>								
1995	74.6 %	13.0 %	4.2 %	(8) %	(8) %	(8) %	(8) %	8.2 %
1996	69.9	14.1	5.0	(8)	(8)	(8)	(8)	11.0
1997	67.2	13.2	5.7	(8)	(8)	(8)	(8)	13.8
1998	62.6	15.1	5.7	(8)	(8)	(8)	(8)	16.6
1999	62.5	16.0	6.2	(8)	(8)	(8)	(8)	15.4
2000	51.1	18.0	6.6	0.1	1.6	1.0	4.6	17.0
2001	42.3	18.5	6.8	0.1	2.9	2.6	6.7	20.0
2002	36.7	15.8	7.6	0.2	2.5	3.8	9.3	24.1
2003	31.7	13.0	7.1	2.2	3.2	7.5	10.8	24.4
2004	23.5	9.9	6.9	4.4	5.7	13.2	12.9	23.5
2005	18.1	7.7	6.2	5.9	5.9	15.9	16.2	24.1
2006	29.3	--	3.8	6.6	6.1	--	25.2	29.0
2007	28.5	--	2.1	--	5.3	--	27.3	36.8
2008	26.1	--	1.3	--	5.2	--	23.2	44.2
<b>Direct Dial IntraLATA Minutes</b>								
1995	8.9 %	2.4 %	4.6 %	(8) %	(8) %	(8) %	(8) %	84.1 %
1996	9.5	5.4	4.4	(8)	(8)	(8)	(8)	80.6
1997	13.9	6.7	3.7	(8)	(8)	(8)	(8)	75.7
1998	15.6	8.7	3.8	(8)	(8)	(8)	(8)	71.8
1999	16.9	12.0	3.6	(8)	(8)	(8)	(8)	67.5
2000	17.3	12.8	5.0	1.6	5.0	18.6	18.0	21.7
2001	15.4	13.2	4.8	1.4	4.3	17.9	17.6	25.3
2002	14.0	11.8	4.8	1.1	2.9	18.5	16.3	30.7
2003	10.7	11.4	8.1	0.9	2.7	17.7	13.2	35.4
2004	7.5	9.4	5.0	1.0	4.6	30.5	12.2	29.9
2005	5.5	9.2	5.3	1.3	5.3	34.3	12.2	26.7
2006	38.1	--	1.8	1.2	6.9	--	17.8	34.2
2007	33.9	--	0.8	--	5.7	--	20.0	39.7
2008	32.9	--	0.4	--	6.1	--	14.2	46.5
<b>Direct Dial InterLATA Minutes</b>								
1995	69.5 %	16.1 %	5.8 %	(8) %	(8) %	(8) %	(8) %	8.6 %
1996	62.5	15.9	7.1	(8)	(8)	(8)	(8)	14.5
1997	62.4	14.9	6.5	(8)	(8)	(8)	(8)	16.2
1998	58.4	17.0	6.5	(8)	(8)	(8)	(8)	18.1
1999	53.2	20.9	6.6	(8)	(8)	(8)	(8)	19.3
2000	44.7	22.0	7.3	0.1	1.6	0.5	2.5	21.3
2001	36.3	20.5	7.6	0.1	1.9	1.8	3.6	28.1
2002	31.2	18.1	9.0	0.3	1.6	3.1	5.6	31.0
2003	26.0	16.6	7.9	1.4	1.8	6.6	6.6	32.9
2004	17.0	12.5	8.1	1.9	6.4	20.3	6.7	27.0
2005	10.8	11.3	8.6	2.6	8.5	23.7	8.2	26.3
2006	35.6	--	3.3	2.4	10.3	--	16.4	32.0
2007	32.7	--	1.5	--	10.8	--	12.7	42.4
2008	34.1	--	1.2	--	12.2	--	9.5	43.0

**Chart 9.2**  
**Residential Household Market Shares**



## Notes for Table 9.5

**Note: Market shares are estimates based on sample data.** Shares for past years have been revised to take into account mergers and acquisitions and changes in methodology. Columns may not sum to 100% due to rounding.

<sup>1</sup> AT&T Long Distance, Lucky Dog Phone Co., ACC Long Distance, AT&T U-verse. Starting in 2006, AT&T includes the former SBC.

<sup>2</sup> MCI Long Distance, Telecom USA, Touch 1, TTI National, LDDS WorldCom and WorldCom Network Service. Starting in 2006, MCI's figures were included in the totals for Verizon.

<sup>3</sup> Excluding Embarq starting in 2006.

<sup>4</sup> BellSouth Long Distance and BellSouth Public Communications. Starting in 2007, BellSouth's figures were included in the totals for AT&T.

<sup>5</sup> Qwest and U S WEST Long Distance.

<sup>6</sup> Ameritech Communications, Ameritech 800, Pacific Bell, Southwest Long Distance, SBC Long Distance and SNET All Distance. Starting in 2006, SBC's figures were included in the totals for AT&T. Starting in 2007, BellSouth's figures were included in the totals for AT&T.

<sup>7</sup> Bell Atlantic Long Distance, NYNEX/Bell Atlantic North, Verizon Select Services ,GTE, and Verizon VoiceWing. Starting in 2006, MCI's figures were included in the totals for Verizon.

<sup>8</sup> Until 2000, the regional Bell operating companies are not broken out of the "Other" category.

<sup>9</sup> Each household is assumed to have a single access line (less than 8% of households in the 2003 sample had more than one access line). These lines are allocated across carriers based on the household's primary long distance carrier which is imputed by the provider of the data, TNS Telecoms. In 1995, 1996 and 1999-2003, TNS defined the household's primary long distance carrier. In 1997, a household's primary long distance carrier was determined based on calls made through long distance carriers, and in 1998, a household's primary long distance carrier was determined based on interLATA calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*™, *Bill Harvesting*®.

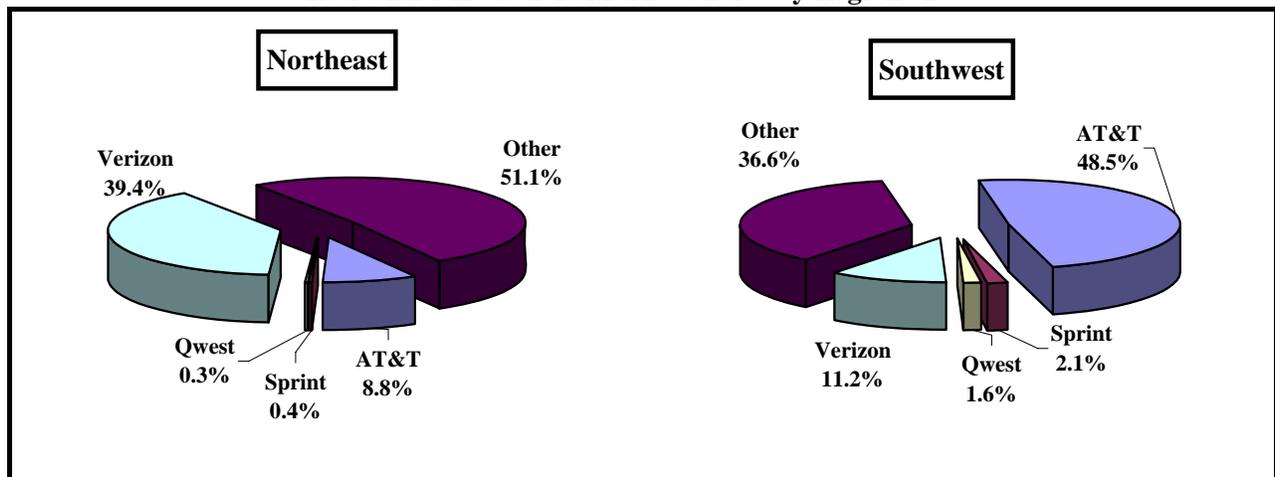
**Table 9.6  
Residential Household Market Shares  
By Region: 2008**

Region <sup>1</sup>	AT&T <sup>2</sup>	MCI <sup>3</sup>	Sprint <sup>4</sup>	BellSouth <sup>5</sup>	Qwest <sup>6</sup>	SBC <sup>7</sup>	Verizon <sup>8</sup>	Other <sup>9</sup>	Sample Size
<b>Households</b>									
Southeast	38.8 %	-- %	1.4 %	-- %	1.2 %	-- %	10.6 %	48.0 %	3,494
West	5.4	--	1.0	--	35.2	--	7.5	50.9	2,261
West Coast	47.2	--	2.0	--	1.6	--	18.4	30.8	1,820
Mid-Atlantic	6.4	--	0.7	--	0.5	--	52.3	40.1	3,244
Mid-West	35.5	--	1.6	--	2.2	--	15.1	45.6	3,404
Northeast	8.8	--	0.4	--	0.3	--	39.4	51.1	2,927
Southwest	48.5	--	2.1	--	1.6	--	11.2	36.6	2,062
Total	26.1 %	-- %	1.3 %	-- %	5.2 %	-- %	23.2 %	44.2 %	19,212
<b>Direct Dial IntraLATA Minutes</b>									
Southeast	13.5 %	-- %	0.8 %	-- %	0.7 %	-- %	15.1 %	70.0 %	34,189
West	0.3	--	0.0	--	43.5	--	7.2	49.1	50,248
West Coast	58.1	--	0.8	--	0.2	--	19.4	21.6	56,007
Mid-Atlantic	4.4	--	0.5	--	2.3	--	23.0	69.9	46,871
Mid-West	52.9	--	0.1	--	0.1	--	10.0	36.9	103,984
Northeast	14.8	--	0.1	--	0.0	--	30.2	54.9	37,393
Southwest	47.4	--	0.7	--	0.2	--	4.6	47.2	55,970
Total	32.9 %	-- %	0.4 %	-- %	6.1 %	-- %	14.2 %	46.5 %	384,663
<b>Direct Dial InterLATA Minutes</b>									
Southeast	16.2 %	-- %	2.3 %	-- %	0.9 %	-- %	10.9 %	69.7 %	137,802
West	2.6	--	0.2	--	64.5	--	4.0	28.7	131,847
West Coast	57.2	--	0.9	--	0.2	--	8.6	33.2	93,885
Mid-Atlantic	8.9	--	1.3	--	0.4	--	18.9	70.5	70,281
Mid-West	58.5	--	1.0	--	0.5	--	9.2	30.8	146,416
Northeast	24.6	--	0.1	--	0.4	--	18.4	56.5	44,127
Southwest	64.4	--	2.1	--	0.8	--	5.7	27.0	101,337
Total	34.1 %	-- %	1.2 %	-- %	12.2 %	-- %	9.5 %	43.0 %	725,695

Note: Market shares are estimates based on sample data. Columns may not sum to 100% due to rounding. For footnotes, please see the next page.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*™, Bill Harvesting®.

**Chart 9.3  
Residential Household Market Shares by Region: 2008**



## Notes for Table 9.6

<sup>1</sup> Southeast: Alabama, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina and Tennessee.

West: Arizona, Colorado, Idaho, Iowa, Minnesota, Montana, Nebraska, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington and Wyoming.

West Coast: California and Nevada.

Mid-Atlantic: Delaware, District of Columbia, Maryland, New Jersey, Pennsylvania, Virginia and West Virginia

Mid-West: Illinois, Indiana, Michigan, Ohio and Wisconsin.

Northeast: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island and Vermont.

Southwest: Arkansas, Kansas, Missouri, Oklahoma and Texas.

<sup>2</sup> AT&T Long Distance, Lucky Dog Phone Co. and ACC Long Distance. Starting in 2006, AT&T includes the former SBC.

<sup>3</sup> MCI Long Distance, Telecom USA, Touch 1, TTI National, LDDS WorldCom and WorldCom Network Service

<sup>4</sup> Not including Embarq.

<sup>5</sup> BellSouth Long Distance and BellSouth Public Communications.

<sup>6</sup> Qwest and U S WEST Long Distance.

<sup>7</sup> Ameritech Communications, Ameritech 800, Pacific Bell, Southwest Long Distance, SBC Long Distance and SNET All Distance. Starting in 2006, SBC's figures were included in the totals for AT&T.

<sup>8</sup> Bell Atlantic Long Distance, NYNEX/Bell Atlantic North, Verizon Select Services and GTE. Starting in 2006, MCI's figures were included in the totals for Verizon.

<sup>9</sup> Households with any other presubscribed carrier. **Note that households for which the presubscribed carrier is unknown or could not be determined have been excluded from the sample.**

**Table 9.7**  
**Regional Bell Operating Companies' Applications**  
**To Provide In-Region InterLATA Service**  
**(Section 271 Applications)**

<b>State</b>	<b>Bell Operating Company</b>	<b>Date Application Resolved</b>
Alabama	BellSouth	09/18/02
Arkansas	SBC	11/16/01
Arizona	Qwest	12/03/03
California	SBC	12/19/02
Colorado	Qwest	12/23/02
Connecticut	Verizon	07/20/01
Delaware	Verizon	09/25/02
District of Columbia	Verizon	03/19/03
Florida	BellSouth	12/19/02
Georgia	BellSouth	05/15/02
Idaho	Qwest	12/23/02
Illinois	SBC	10/15/03
Indiana	SBC	10/15/03
Iowa	Qwest	12/23/02
Kansas	SBC	01/22/01
Kentucky	BellSouth	09/18/02
Louisiana	BellSouth	05/15/02
Maine	Verizon	06/19/02
Maryland	Verizon	03/19/03
Massachusetts	Verizon	04/16/01
Michigan	SBC	09/17/03
Minnesota	Qwest	06/26/03
Mississippi	BellSouth	09/18/02
Missouri	SBC	11/16/01
Montana	Qwest	12/23/02
Nebraska	Qwest	12/23/02
Nevada	SBC	04/14/03
New Hampshire	Verizon	09/25/02
New Jersey	Verizon	06/24/02
New Mexico	Qwest	04/15/03
New York	Verizon	12/22/99
North Carolina	BellSouth	09/18/02
North Dakota	Qwest	12/23/02
Ohio	SBC	10/15/03
Oklahoma	SBC	01/22/01
Oregon	Qwest	04/15/03
Pennsylvania	Verizon	09/19/01
Rhode Island	Verizon	02/22/02
South Carolina	BellSouth	09/18/02
South Dakota	Qwest	04/15/03
Tennessee	BellSouth	12/19/02
Texas	SBC	06/30/00
Utah	Qwest	12/23/02
Vermont	Verizon	04/17/02
Virginia	Verizon	10/30/02
Washington	Qwest	12/23/02
West Virginia	Verizon	03/19/03
Wisconsin	SBC	10/15/03
Wyoming	Qwest	12/23/02

## 10 Minutes

As in the case of telephone lines, there are several alternative measures of calling volumes. Most subscribers purchase service with unlimited local calling. As a result, most local calls are not metered. Periodic studies have been used within the telephone industry to estimate the number of calls and calling minutes for a variety of purposes. For example, periodic studies of dial equipment minutes (DEMs) historically were used to estimate the proportion of calling that is interstate and to allocate costs between interstate and intrastate services. However, DEMs are no longer being used for separations purposes because the separations factors are now frozen. Historical data for DEMs can be found in the August 2003 issue of *Trends in Telephone Service*.

### 1. Interstate Switched Access Minutes

Switched access minutes are those minutes transmitted by long distance carriers that also use the distribution networks of local telephone companies, i.e., calls made on private telecommunications networks and on leased lines are excluded. On ordinary long distance calls, minutes are counted both where the call originates and where the call terminates. Access minutes include only the domestic portion of international calls. WATS and toll-free (800/888/877/866) calls are counted only on one end of the call. WATS calls generate access minutes only at the terminating end of the call and toll-free (800/888/877/866) calls generate access minutes only at the originating end of the call; both types of minutes are counted in the terminating minutes because they are billed at the terminating rate. Originating WATS and terminating toll-free minutes are covered under special access arrangements, and hence are not subject to switched access charges. Finally, switched access minutes include time for incomplete calls and setup time.

Table 10.1 and Chart 10.1 show the total number of interstate switched access minutes handled by all long distance carriers starting with mid-1984, when the data first became available. The number of minutes grew steadily from mid-1984 to 2000 stemming from a combination of overall economic growth and price reductions. Since 2001, interstate switched access minutes have declined, due to a number of reasons including substitution of other services.

### 2. Billed Access Minutes and Calls

Another measure of usage is the number of interLATA billed access minutes and the number of local calls and toll calls. The large incumbent LECs have filed data on this as part of their Automated Reporting Management Information System (ARMIS) reports. The individual carrier's data can be obtained from the ARMIS Report 43-08 on the ARMIS web page at [www.fcc.gov/wcb/armis](http://www.fcc.gov/wcb/armis). However, ARMIS filing requirements were reduced significantly for 2008 data by Commission forbearance orders and these data are no longer submitted.

The number of interLATA access minutes is based on bills sent to interexchange carriers. They include total originating and terminating access minutes of use. Where these data are

unavailable, a statistically valid calculation is sometimes used. The number of local calls refers to the number of originating calls completed or unanswered between points both of which are within the local service area of the calling telephone, or total originating calls minus total originating toll calls. The number of toll calls completed refers to the number of completed calls directed to a point outside the local service area of the calling telephone. IntraLATA toll calls completed (originating) consist of the number of completed toll calls carried by the reporting local operating company within a given local access and transport area (LATA) and interLATA toll calls completed (originating) consist of completed calls directed to and carried by interexchange carriers. IntraLata toll calls carried by interexchange carriers are not included. More detailed definitions can be found on the ARMIS web site. Intralata toll calls carried by Interexchange carriers are not included.

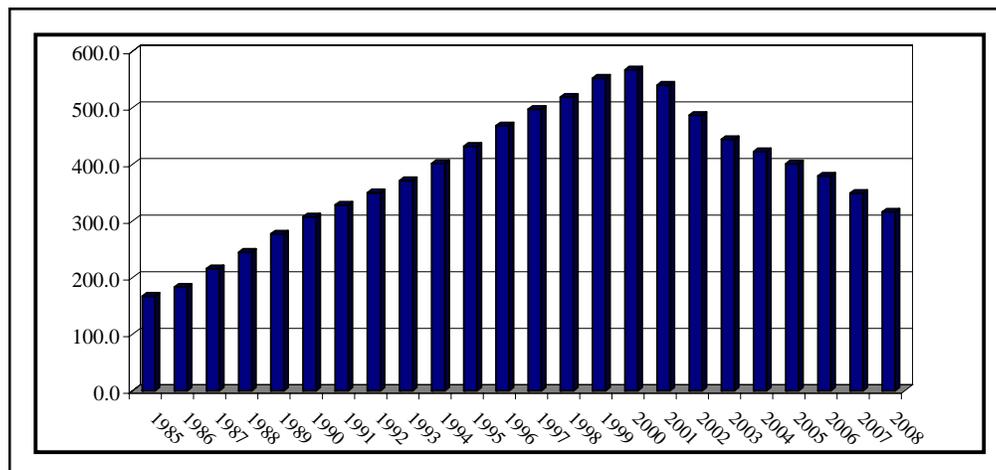
Table 10.2 shows historical data on the number of local and toll calls and the number of interLATA billed access minutes for the large ILECs reporting to the Commission. Toll calls are further categorized by intraLATA, interLATA interstate and interLATA intrastate. Interstate and intrastate billed access minutes are also shown.

**Table 10.1**  
**ILEC Quarterly Interstate Switched Access Minutes**  
**(In Billions)**

Year	Period	Access Minutes	Year	Period	Access Minutes	Year	Period	Access Minutes
1984	Third Quarter	37.5						
	Fourth Quarter	39.6						
1985	First Quarter	39.6	1993	First Quarter	90.6	2001	First Quarter	138.1
	Second Quarter	41.5		Second Quarter	91.2		Second Quarter	137.1
	Third Quarter	42.8		Third Quarter	93.6		Third Quarter	133.3
	Fourth Quarter	43.3		Fourth Quarter	95.9		Fourth Quarter	131.3
	<b>Total 1985</b>	<b>167.1</b>		<b>Total 1993</b>	<b>371.2</b>		<b>Total 2001</b>	<b>539.8</b>
1986	First Quarter	43.0	1994	First Quarter	98.7	2002	First Quarter	124.7
	Second Quarter	44.8		Second Quarter	97.9		Second Quarter	124.3
	Third Quarter	46.7		Third Quarter	101.9		Third Quarter	119.6
	Fourth Quarter	48.5		Fourth Quarter	102.9		Fourth Quarter	118.0
	<b>Total 1986</b>	<b>183.1</b>		<b>Total 1994</b>	<b>401.4</b>		<b>Total 2002</b>	<b>486.6</b>
1987	First Quarter	51.2	1995	First Quarter	105.6	2003	First Quarter	114.2
	Second Quarter	52.5		Second Quarter	106.8		Second Quarter	112.1
	Third Quarter	55.0		Third Quarter	109.0		Third Quarter	109.9
	Fourth Quarter	57.0		Fourth Quarter	110.6		Fourth Quarter	107.7
	<b>Total 1987</b>	<b>215.7</b>		<b>Total 1995</b>	<b>431.9</b>		<b>Total 2003</b>	<b>443.9</b>
1988	First Quarter	59.0	1996	First Quarter	115.7	2004	First Quarter	109.3
	Second Quarter	59.6		Second Quarter	114.7		Second Quarter	106.2
	Third Quarter	62.1		Third Quarter	117.5		Third Quarter	105.0
	Fourth Quarter	64.0		Fourth Quarter	120.2		Fourth Quarter	102.0
	<b>Total 1988</b>	<b>244.6</b>		<b>Total 1996</b>	<b>468.1</b>		<b>Total 2004</b>	<b>422.4</b>
1989	First Quarter	66.2	1997	First Quarter	122.1	2005	First Quarter	101.2
	Second Quarter	68.5		Second Quarter	124.4		Second Quarter	100.5
	Third Quarter	69.7		Third Quarter	124.9		Third Quarter	100.4
	Fourth Quarter	72.6		Fourth Quarter	125.8		Fourth Quarter	98.8
	<b>Total 1989</b>	<b>277.1</b>		<b>Total 1997</b>	<b>497.3</b>		<b>Total 2005</b>	<b>401.0</b>
1990	First Quarter	74.7	1998	First Quarter	124.0	2006	First Quarter	98.2
	Second Quarter	75.8		Second Quarter	131.3		Second Quarter	95.3
	Third Quarter	77.9		Third Quarter	130.7		Third Quarter	94.0
	Fourth Quarter	79.1		Fourth Quarter	132.8		Fourth Quarter	91.9
	<b>Total 1990</b>	<b>307.4</b>		<b>Total 1998</b>	<b>518.8</b>		<b>Total 2006</b>	<b>379.3</b>
1991	First Quarter	79.2	1999	First Quarter	135.6	2007	First Quarter	90.6
	Second Quarter	81.9		Second Quarter	138.1		Second Quarter	88.5
	Third Quarter	82.6		Third Quarter	138.3		Third Quarter	86.4
	Fourth Quarter	84.4		Fourth Quarter	140.3		Fourth Quarter	83.4
	<b>Total 1991</b>	<b>328.0</b>		<b>Total 1999</b>	<b>552.3</b>		<b>Total 2007</b>	<b>348.9</b>
1992	First Quarter	85.6	2000	First Quarter	142.8	2008	First Quarter	83.6
	Second Quarter	86.5		Second Quarter	142.9		Second Quarter	80.4
	Third Quarter	87.9		Third Quarter	141.3		Third Quarter	77.1
	Fourth Quarter	89.8		Fourth Quarter	139.9		Fourth Quarter	74.6
	<b>Total 1992</b>	<b>349.7</b>		<b>Total 2000</b>	<b>566.9</b>		<b>Total 2008</b>	<b>315.7</b>

Source: National Exchange Carrier Association (NECA), MOU/Data/Summary of NECA's Total Pool Results, March 17, 2009. Industry Analysis and Technology Division, Wireline Competition Bureau, *Universal Service Monitoring Report* (December 2008).

**Chart 10.1**  
**Interstate Switched Access Minutes for Incumbent Local Exchange Carriers**  
**(In Billions)**



**Table 10.2**  
**Telephone Calls and Billed Access Minutes of Large ILECs Reporting to the Commission**

Year	Number of Carriers	Number of Telephone Calls (Thousands)						InterLATA Billed Access Minutes (Originating and Terminating) (Thousands)		
		Local Calls	Toll Calls Completed (Originating)					Total	Interstate	Intrastate
			Total	IntraLATA	Total InterLATA	InterLATA Interstate	InterLATA Intrastate			
1985	55	365,304,830	NA	NA	NA	NA	NA	NA	NA	NA
1986	57	372,296,473	NA	NA	NA	NA	NA	NA	NA	NA
1987	52	379,864,264	NA	NA	NA	NA	NA	NA	NA	NA
1988	52	379,035,883	67,547,342	18,983,768	48,563,574	36,752,925	11,810,649	NA	NA	NA
1989	51	389,383,322	68,547,451	19,406,222	49,141,229	37,593,867	11,547,362	NA	NA	NA
1990	51	402,492,293	63,359,346	20,263,554	43,095,792	31,888,748	11,207,044	NA	NA	NA
1991	52	416,213,954	67,333,207	23,337,553	43,995,654	32,126,555	11,869,099	405,456,048	305,745,611	99,710,437
1992	54	434,175,743	71,502,090	22,612,572	48,889,518	36,036,032	12,853,486	432,356,515	327,821,281	104,535,234
1993	53	447,473,714	78,077,246	23,757,662	54,319,584	38,746,788	15,572,796	465,270,369	351,022,599	114,247,770
1994	52	465,207,539	83,441,709	23,796,633	59,645,076	43,244,593	16,400,483	500,297,267	374,996,101	125,301,166
1995	53	484,195,345	94,051,667	23,327,801	70,723,866	50,618,771	20,105,095	549,982,263	405,579,546	144,402,717
1996	51	504,131,507	94,905,927	21,376,847	73,529,080	52,677,037	20,852,043	598,563,946	438,772,880	159,791,066
1997	51	522,025,261	98,424,977	21,844,925	76,580,052	54,563,338	22,016,714	647,813,708	469,638,292	178,175,416
1998	52	544,288,934	96,934,938	18,469,316	78,465,622	55,974,210	22,491,412	690,523,467	497,138,901	193,384,566
1999	52	553,853,237	102,245,666	18,116,240	84,129,426	57,806,961	26,322,465	739,042,459	519,272,905	219,769,554
2000	52	536,523,081	105,978,596	16,157,912	89,820,684	59,212,055	30,608,629	792,263,836	535,011,649	257,252,187
2001	52	515,335,676	97,849,444	14,970,794	82,878,650	53,319,645	29,559,005	745,754,124	504,026,109	241,728,015
2002	53	453,603,777	95,709,932	13,324,887	82,385,045	52,905,686	29,479,359	666,477,372	451,602,651	214,874,720
2003	54	418,024,360	87,670,954	11,794,327	75,876,627	48,968,414	26,908,213	611,329,124	414,524,141	196,804,983
2004	56	380,783,208	82,254,901	10,132,759	72,122,142	47,575,750	24,546,392	600,762,941	406,173,324	194,589,617
2005	56	330,018,175	79,451,371	9,308,449	70,142,922	45,381,539	24,761,383	577,328,125	388,561,466	188,766,659
2006	56	280,182,070	73,111,230	8,610,165	64,501,065	42,003,740	22,497,325	543,337,469	371,990,523	171,346,945
2007	55	235,428,403	69,608,967	7,810,818	61,798,149	40,692,976	21,105,173	504,462,125	348,506,441	155,955,683

NA - Not available.

Source: Industry Analysis and Technology Division, Wireline Competition Division, *Universal Service Monitoring Report* (December 2008).

Note: Between 1987 and 1988, there were significant changes in the definitions of many of the items in this table. With the implementation of a new Uniform System of Accounts (USOA) in 1988, new categories of reporting units of network usage were created and defined. In 1992, some of these definitions were further refined when the reporting mechanism of the carriers was changed for the filing of 1991 data. For these reasons, there may be inconsistencies in the data reported for 1985-1987 compared to what was reported for 1988, and also between 1988 and subsequent years, as the carriers were adapting to the new USOA and automated reporting requirements.

# 11 Mobile Wireless Service

## 1. Industry Statistics

There are several measures of mobile wireless subscribers. While there are some differences in these data series, they all show significant growth in mobile wireless subscribers. The Commission collects data on the number of wireless subscribers by state as part of the local competition and broadband data gathering program (FCC Form 477). This program requires providers of wireless service to file information twice each year. Prior to June 2005, only wireless carriers with at least 10,000 subscribers in a state were required to report.<sup>1</sup> The Commission also collects data on wireless numbers as part of the data collection on Numbering Resources and Utilization/Forecasting (FCC Form 502). Wireless numbers are a good proxy for wireless subscribers since wireless carriers generally assign only one subscriber per number. The CTIA-The Wireless Association<sup>TM</sup> periodically publishes summary information on the industry. CTIA can be found on the Internet at [www.ctia.org](http://www.ctia.org).

Table 11.1 and Chart 11.1 show three measures of mobile wireless subscribers over time. In 1984, there were 92,000 subscribers, as compared with about 270 million subscribers as of December 31, 2008. Table 11.2 shows the number of wireless subscribers per state as of June 30, 2008 using data from FCC Form 477. Table 11.3 provides information on the industry published by CTIA. These trends include revenues, cell sites, employees, and average monthly bills. The table shows that the industry had more than 268,000 employees as of December 2008, as compared to about 3,500 employees in 1986; and there was a significant drop in the average monthly bill from \$96.83 at the end of 1987 to \$50.07 as of December 2008.

## 2. Residential Wireless Toll Calling Patterns

The summary of residential wireless usage presented in Tables 11.4 through 11.7 is based on calling data captured from a sample of consumer bills by TNS Telecoms. (For additional information on TNS Telecoms, see Appendix B.) While these tables were constructed in a manner similar to those describing wireline toll calling patterns in Section 14, the two sets of tables should be compared with caution. One important issue is that, if wireless bills itemize calls, all calls, rather than just toll calls, are listed.<sup>2</sup> As a result, these tables characterize wireless local and long-distance calling where the tables in Section 14 only cover wireline long distance. To provide some frame of reference,

---

<sup>1</sup> Mobile telephony service providers with fewer than 10,000 subscribers in a state reported about 389,000 subscribers as of June 30, 2005. Such filers reported (on a voluntary basis) about 69,000 subscribers six months earlier.

<sup>2</sup> In fact, since this analysis generally includes all outgoing wireless calls, many of the calls in the data are not traditional voice calls. The data include calls made to access voicemail, move data, access the Internet, send faxes or text messages, etc.

wireline distinctions have been imposed on the wireless calling data. That is, we distinguished wireless interstate from intrastate calls. Another issue is that not all bills, wireline or wireless, itemize any calls. The extent to which certain types of providers are more or less likely to provide itemization could affect comparisons.

Table 11.4 shows the estimated distribution of residential wireless calls and minutes over time. The vast majority of both calls and minutes were intrastate. The number of interstate calls rose from about 9% to 13% of the total from 2000 to 2003, and interstate minutes rose from 16% to 27% of the total over the same period. This was likely an adjustment to the introduction of flat-rate pricing during that time. Since 2003, the jurisdictional distribution of calls and minutes has been relatively stable. We note that these figures are estimates, based on sample data, and the distribution of calls and minutes may vary across carriers.

A snapshot of the duration of wireless calls is presented in Table 11.5. In the 2008 data shown, wireless calls were generally brief. About 71% of intrastate wireless calls (which, again, represent the vast majority of calls) were 2 minutes or less. Like wireline traffic, the data are right-skewed such that a handful of long calls pull the average call duration far above the median duration. As a measure of central tendency, the median is more representative of the duration of a typical call than is the average in this context.

Tables 11.6 and 11.7 show when wireless intrastate and interstate calls, respectively, were made. Over the years shown, patterns in intrastate calls have changed only slightly. Daytime minutes gained share from nighttime minutes (from about 72.1% in 2005 to 73.5% in 2007), and weekend use fell slightly as a share of total use. Traffic was typically heaviest on Friday and lightest on Sunday.

Patterns in interstate calling were different. Unlike intrastate calls, interstate calls were generally most likely on the weekend, particularly on Sunday. Further, though both types of calls were more likely during the day than at night, relative to intrastate calls, interstate calls were allocated more heavily to the nighttime hours. Nonetheless, the same forces acting to change intrastate calling patterns seem to be having similar, yet more dramatic effects on interstate calling. For example, like intrastate calls, the share of interstate minutes made during the day has continued to increase, from about 63% of the total in 2005 to almost 66% in 2007. Weekend use has also continued to fall, from 38.1% in 2005 to 35.5% in 2007.

**Table 11.1**  
**Measures of Mobile Wireless Telephone Subscribers**  
**(In Thousands)**

	Reported by CTIA	FCC Form 477 <sup>1</sup>	FCC Form 502 <sup>2</sup>
1984 December	92		
1985 December	340		
1986 December	682		
1987 December	1,231		
1988 December	2,069		
1989 December	3,509		
1990 December	5,283		
1991 December	7,557		
1992 December	11,033		
1993 December	16,009		
1994 December	24,134		
1995 December	33,786		
1996 December	44,043		
1997 December	55,312		
1998 December	69,209		
1999 June	76,285		
December	86,047	79,696	
2000 June	97,036	90,643	
December	109,478	101,043	99,019
2001 June	118,398	114,029	111,734
December	128,375	123,991	128,493
2002 June	134,561	130,751	136,927
December	140,767	138,878	141,776
2003 June	148,066	147,624	151,861
December	158,722	157,042	160,637
2004 June	169,467	167,313	170,406
December	182,140	181,105	184,819
2005 June	194,479	192,053	198,381
December	207,896	203,667	213,212
2006 June	219,652	217,418	227,135
December	233,041	229,619	241,834
2007 June	243,428	238,316	251,945
December	255,396	249,332	262,091
2008 June	262,720	255,729	271,370
December	270,334	261,284	279,646

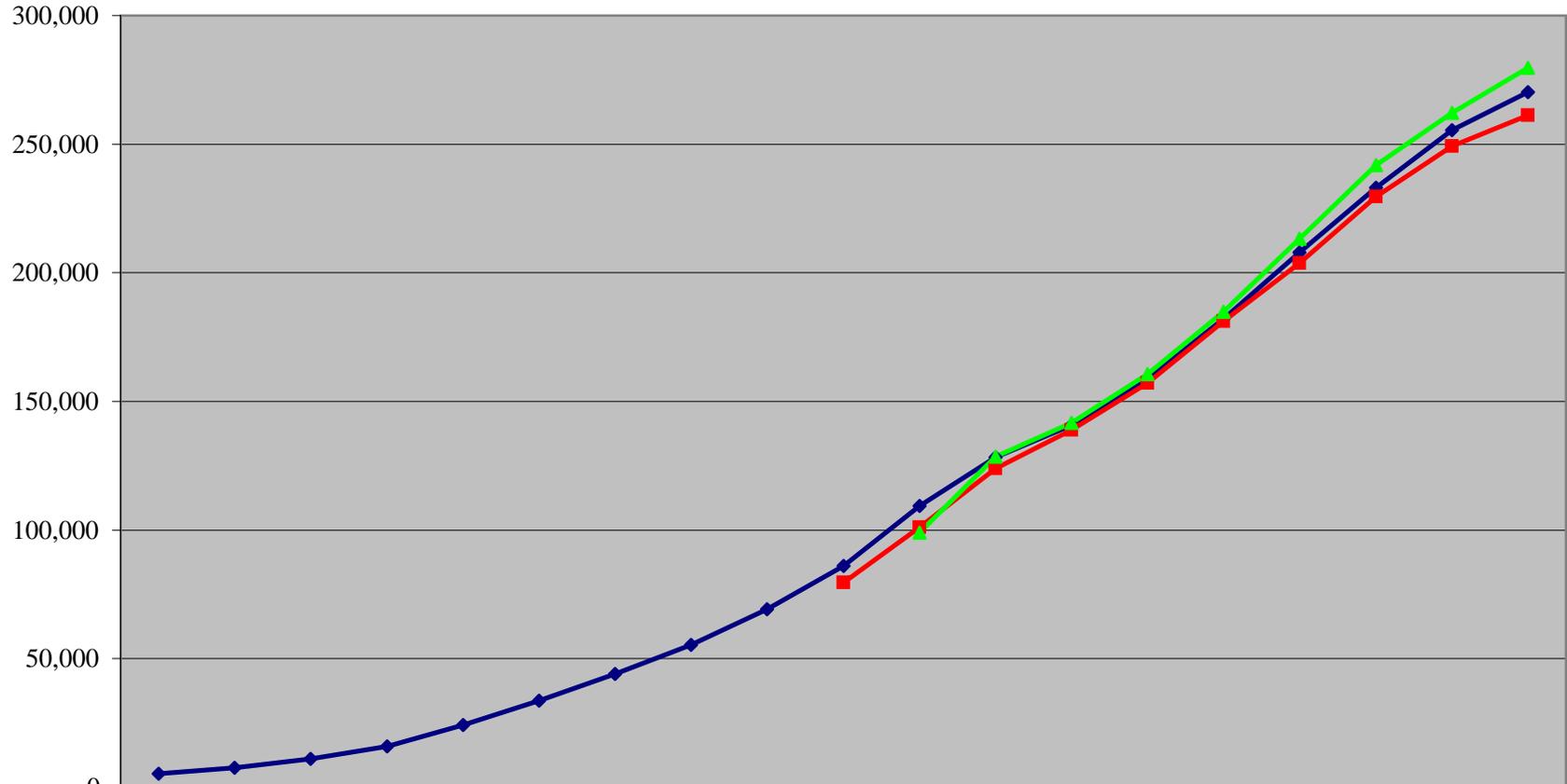
NA indicates not available.

<sup>1</sup> See Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of December 31, 2008* (June 2010). Carriers with under 10,000 subscribers in a state were not required to report until June 2005.

<sup>2</sup> Numbers are adjusted for porting. See current and previous editions of Industry Analysis and Technology Division, Wireline Competition Bureau, *Numbering Resource Utilization in the United States*.

Source: CTIA-The Wireless Association<sup>TM</sup> and FCC Forms 477 and 502. FCC Form 502 contains assigned wireless numbers.

**Chart 11.1**  
**Mobile Wireless Telephone Subscribers As of December**  
**(Subscribers in Thousands)**



	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
◆ CTIA	5,283	7,557	11,033	16,009	24,134	33,786	44,043	55,312	69,209	86,047	109,478	128,375	140,767	158,722	182,140	207,896	233,041	255,396	270,334
■ FCC Form 477										79,696	101,043	123,991	138,878	157,042	181,105	203,667	229,619	249,332	261,284
▲ FCC Form 502											99,019	128,493	141,776	160,673	184,819	213,212	241,834	262,091	279,646

**Table 11.2**  
**Mobile Telephone Facilities-based Carriers and Mobile Telephony Subscribers**

State	Dec 2008		Subscribers (In Thousands)							
	Carriers	% Resold <sup>1</sup>	2005		2006		2007		2008	
			Jun	Dec	Jun	Dec	Jun	Dec	Jun	Dec
Alabama	15	7 %	2,874	3,105	3,276	3,375	3,605	3,765	3,887	3,960
Alaska	12	13	341	377	397	412	432	460	480	383
American Samoa	*	*	*	*	*	*	*	*	*	*
Arizona	13	8	3,543	3,844	4,153	4,405	4,637	4,800	4,936	4,983
Arkansas	9	9	1,681	1,781	1,924	2,044	2,149	2,288	2,446	2,530
California	18	7	24,572	25,537	27,497	29,717	30,204	32,247	31,946	32,177
Colorado	12	11	3,041	3,247	3,428	3,608	3,756	3,968	4,066	4,311
Connecticut	8	7	2,329	2,463	2,582	2,705	2,787	2,884	2,959	3,030
Delaware	7	8	585	618	650	683	724	751	775	778
District of Columbia	7	9	753	825	879	880	966	936	1,047	1,096
Florida	13	9	12,620	12,568	14,177	14,762	15,255	15,605	15,809	16,158
Georgia	14	5	6,001	6,079	6,865	7,282	7,598	7,941	8,142	8,322
Guam	*	*	*	*	*	*	*	*	*	*
Hawaii	7	4	934	983	1,010	1,035	1,067	1,096	1,115	1,184
Idaho	18	7	774	834	901	973	1,019	1,086	1,125	1,167
Illinois	15	7	8,227	8,655	9,148	9,589	9,949	10,330	10,634	10,919
Indiana	12	11	3,443	3,716	3,973	4,271	4,448	4,675	4,824	4,956
Iowa	67	8	1,634	1,811	1,867	2,010	2,058	2,166	2,245	2,319
Kansas	15	11	1,660	1,794	1,905	2,047	2,133	2,261	2,326	2,421
Kentucky	13	10	2,508	2,662	2,821	2,966	3,101	3,291	3,343	3,445
Louisiana	11	7	2,942	3,192	3,356	3,492	3,612	3,765	3,896	4,012
Maine	8	17	711	746	787	845	882	941	972	1,012
Maryland	9	8	3,968	4,239	4,471	4,691	4,818	5,024	5,124	5,234
Massachusetts	7	7	4,488	4,728	4,917	5,129	5,289	5,470	5,624	5,749
Michigan	13	8	6,230	6,604	6,863	7,094	7,333	7,608	7,821	8,027
Minnesota	9	11	3,132	3,380	3,543	3,702	3,834	4,048	4,164	4,345
Mississippi	12	8	1,631	1,821	1,923	2,030	2,070	2,196	2,252	2,312
Missouri	14	9	3,595	3,853	4,068	4,322	4,480	4,674	4,835	4,940
Montana	8	7	466	525	575	620	650	694	723	748
Nebraska	13	5	1,071	1,160	1,199	1,272	1,325	1,387	1,451	1,496
Nevada	13	7	1,605	1,777	1,883	1,990	2,093	2,167	2,249	2,268
New Hampshire	8	11	791	849	897	943	973	1,022	1,045	1,080
New Jersey	7	6	6,234	6,617	6,954	7,207	7,419	7,654	7,834	8,008
New Mexico	11	9	1,025	1,170	1,253	1,333	1,416	1,489	1,555	1,536
New York	11	10	12,996	13,805	14,574	15,262	15,901	16,395	17,260	16,702
North Carolina	14	8	5,503	5,792	6,209	6,627	6,962	7,306	7,428	8,024
North Dakota	9	6	368	432	457	473	492	513	541	581
Northern Mariana Isl.	*	*	*	*	*	*	*	*	*	*
Ohio	14	9	6,994	7,504	7,939	8,380	8,723	9,099	9,357	9,565
Oklahoma	19	8	2,002	2,189	2,317	2,480	2,572	2,723	2,808	2,889
Oregon	10	9	2,056	2,339	2,484	2,656	2,781	2,923	3,007	3,084
Pennsylvania	14	10	7,397	7,942	8,349	8,831	9,201	9,615	9,895	10,214
Puerto Rico	7	2	2,003	2,111	2,171	2,301	2,323	2,411	2,502	2,624
Rhode Island	7	9	689	749	765	798	829	848	874	888
South Carolina	15	9	2,607	2,784	3,001	3,209	3,340	3,500	3,573	3,323
South Dakota	10	6	434	481	514	548	570	596	611	631
Tennessee	14	8	4,066	4,417	4,731	5,127	4,971	5,246	5,791	5,518
Texas	28	6	14,424	15,644	16,928	17,822	18,792	19,677	20,390	21,008
Utah	15	7	1,414	1,530	1,649	1,775	1,874	1,971	2,046	2,095
Vermont	7	16	295	314	334	358	375	402	421	435
Virgin Islands	*	*	*	*	*	*	*	*	*	*
Virginia	11	9	4,851	5,073	5,325	5,607	6,148	6,416	6,242	6,856
Washington	11	9	4,062	4,249	4,495	4,799	5,035	5,292	5,461	5,624
West Virginia	11	17	821	858	965	1,040	1,095	1,173	1,236	1,295
Wisconsin	12	10	3,200	3,366	3,517	3,510	3,641	3,842	3,966	4,265
Wyoming	13	9	315	342	359	387	410	441	457	484
Nationwide	175	8 %	192,053	203,667	217,418	229,619	238,316	249,332	255,729	261,284

\* Data withheld to maintain firm confidentiality. Some data for June 2008 have been revised.

<sup>1</sup> Percentage of mobile telephony subscribers purchasing their service subscriptions from a mobile wireless reseller.

**Table 11.3**  
**Mobile Wireless Telephone Service: Industry Survey Results**  
**(As Reported by CTIA-The Wireless Association™)**

	<b>Subscribers</b>	<b>Six-Month Revenues (Thousands)</b>	<b>Roamer Service Revenues (Thousands)</b>	<b>Cell Sites</b>	<b>Employees</b>	<b>Average Monthly Bill *</b>	<b>Average Minutes of Use per Month *</b>
1986 June	500,000	\$360,585		1,194	3,556		
December	681,825	462,467		1,531	4,334		
1987 June	883,778	479,514		1,732	5,656		
December	1,230,855	672,005		2,305	7,147	\$96.83	
1988 June	1,608,697	886,075		2,789	9,154	95.00	
December	2,069,441	1,073,473	\$89,331	3,209	11,400	98.02	
1989 June	2,691,793	1,406,463	121,368	3,577	13,719	85.52	
December	3,508,944	1,934,132	173,199	4,169	15,927	89.30	
1990 June	4,368,686	2,126,362	192,350	4,768	18,973	83.94	
December	5,283,055	2,422,458	263,660	5,616	21,382	80.90	
1991 June	6,380,053	2,653,505	302,329	6,685	25,545	74.56	
December	7,557,148	3,055,017	401,325	7,847	26,327	72.74	
1992 June	8,892,535	3,633,285	436,725	8,901	30,595	68.51	
December	11,032,753	4,189,441	537,146	10,307	34,348	68.68	
1993 June	13,067,318	4,819,259	587,347	11,551	36,501	67.31	
December	16,009,461	6,072,906	774,266	12,824	39,775	61.48	140
1994 June	19,283,306	6,519,030	778,116	14,740	45,606	58.65	
December	24,134,421	7,710,890	1,052,666	17,920	53,902	56.21	119
1995 June	28,154,414	8,740,352	1,120,337	19,833	60,624	52.42	
December	33,785,661	10,331,614	1,422,233	22,663	68,165	51.00	119
1996 June	38,195,466	11,194,247	1,314,943	24,802	73,365	48.84	
December	44,042,992	12,440,724	1,465,992	30,045	84,161	47.70	125
1997 June	48,705,553	13,134,551	1,392,440	38,650	97,039	43.86	
December	55,312,293	14,351,082	1,581,765	51,600	109,387	42.78	117
1998 June	60,831,431	15,286,660	1,584,891	57,674	113,111	39.88	
December	69,209,321	17,846,515	1,915,578	65,887	134,754	39.43	136
1999 June	76,284,753	19,368,304	1,922,416	74,157	141,929	40.24	
December	86,047,003	20,650,185	2,163,001	81,698	155,817	41.24	185
2000 June	97,035,925	24,645,365	1,971,625	95,733	159,645	45.15	
December	109,478,031	27,820,655	1,911,356	104,288	184,449	45.27	255
2001 June	118,397,734	30,905,721	1,727,058	114,059	186,317	45.56	
December	128,374,512	34,410,513	2,209,387	127,540	203,580	47.37	380
2002 June	134,561,370	36,707,086	1,846,267	131,350	186,956	47.42	
December	140,766,842	39,801,101	2,049,245	139,338	192,410	48.40	427
2003 June	148,065,824	41,384,171	1,825,243	147,719	187,169	49.46	
December	158,721,981	46,239,922	1,941,024	162,986	205,629	49.91	507
2004 June	169,467,393	49,275,671	2,015,780	174,368	212,368	49.49	
December	182,140,362	52,845,539	2,194,532	175,725	226,016	50.64	584
2005 June	194,479,364	55,689,208	1,941,960	178,025	225,162	49.52	
December	207,896,198	57,849,013	1,844,371	183,689	233,067	49.98	708
2006 June	219,652,457	60,450,669	1,713,680	197,576	238,236	49.30	
December	233,040,781	65,006,156	1,780,614	195,613	253,793	50.56	714
2007 June	243,428,202	67,887,668	1,830,435	210,360	257,401	49.94	
December	255,395,599	70,981,636	1,911,579	213,299	266,782	49.79	769
2008 June	262,720,165	72,728,764	1,778,519	220,472	267,855	48.54	
December	270,333,881	75,355,406	1,960,755	242,130	268,528	50.07	708

\* Represents the average per month for the previous six months.

Source: CTIA-The Wireless Association™: Estimates for Total Industry.

**Table 11.4**  
**Distribution of Residential Wireless Calls and Minutes <sup>1</sup>**

Year	Calls				Minutes			
	Percentage of Calls			Total Calls in Sample	Percentage of Minutes			Total Minutes in Sample
	Intrastate	Interstate	Others <sup>2</sup>		Intrastate	Interstate	Others <sup>2</sup>	
2000	87	9	4	295,892	82	16	2	760,380
2001	84	11	5	330,444	76	22	2	952,993
2002	82	13	5	502,946	71	26	2	1,614,341
2003	82	13	5	547,767	71	27	3	1,797,559
2004	82	14	4	508,799	70	28	2	1,690,428
2005	81	15	4	506,072	70	28	2	1,717,643
2006	81	14	5	610,693	71	27	3	2,123,705
2007	81	15	4	381,996	71	28	1	1,366,040
2008 <sup>3</sup>	81	15	4	203,365	68	30	2	751,896

**Note:** Individual figures may not add to totals due to rounding. Some previously published figures have been revised.

<sup>1</sup> Outgoing, itemized calls only.

<sup>2</sup> Inter-, intrastate status could not be determined.

<sup>3</sup> 2008 calculations based on first, second and third quarter data only.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*®.

**Table 11.5**  
**Duration of Residential Wireless Calls: 2008**<sup>1</sup>

<b>Duration of Call (Minutes)</b>	<b>Intrastate</b>	<b>Interstate</b>	<b>All Calls</b>
1	48.5 %	39.4 %	46.9 %
2	22.6	20.0	22.2
3	8.5	7.2	8.2
4	4.6	4.5	4.6
5	3.0	3.5	3.1
6	2.2	2.7	2.3
7	1.6	2.3	1.7
8	1.3	1.9	1.4
9	1.0	1.6	1.1
10	0.8	1.4	0.9
11-15	2.6	4.9	3.0
16-20	1.2	3.1	1.5
21-25	0.7	2.0	0.9
26-30	0.4	1.5	0.6
31-45	0.6	2.2	0.8
46-60	0.2	0.9	0.3
> 60	0.2	0.9	0.3
Average Duration	3.3	6.2	3.8
Median Duration	2.0	2.0	2.0
Sample Size	152,483	32,010	184,493

**Note:** Individual figures may not add to totals due to rounding.

<sup>1</sup> Outgoing, itemized calls only. All seven-digit dialed calls are considered intrastate. 800-type calls and calls for which a cross-state distinction could not be made were excluded from this analysis. Note also that only data from first, second and third quarter 2008 were available for these calculations.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*<sup>®</sup>.

**Table 11.6**  
**Distribution of Residential Intrastate Wireless Minutes**  
**By Day and Time <sup>1</sup>**

**2008**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	10.9 %	4.0 %	14.9 %
Tuesday	10.9	4.0	14.9
Wednesday	10.9	3.9	14.8
Thursday	11.5	4.3	15.8
Friday	11.6	3.9	15.5
Saturday	9.8	3.2	13.0
Sunday	7.6	3.5	11.1
<b>Total</b>	<b>73.3 %</b>	<b>26.7 %</b>	<b>100.0 %</b>

**Calls in sample = 152,483.**

**2007**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	10.3 %	3.7 %	14.0 %
Tuesday	11.1	4.0	15.1
Wednesday	10.9	4.2	15.1
Thursday	11.2	4.2	15.5
Friday	11.9	3.9	15.8
Saturday	10.1	3.2	13.3
Sunday	7.9	3.3	11.2
<b>Total</b>	<b>73.5 %</b>	<b>26.5 %</b>	<b>100.0 %</b>

**Calls in sample =291,142.**

**2006**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	10.7 %	3.7 %	14.4 %
Tuesday	10.8	4.1	14.9
Wednesday	11.0	4.0	15.1
Thursday	11.1	4.2	15.3
Friday	11.8	3.9	15.7
Saturday	10.2	3.3	13.5
Sunday	7.7	3.4	11.1
<b>Total</b>	<b>73.4 %</b>	<b>26.6 %</b>	<b>100.0 %</b>

**Calls in sample = 463,098.**

**Note:** Individual figures may not add to totals due to rounding.

<sup>1</sup> Outgoing, itemized calls only. All seven-digit dialed calls are considered intrastate. 800-type calls and calls for which a cross-state distinction could not be made were excluded from this analysis. Note also that only data from first, second and third quarter 2008 were available for these calculations.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*<sup>®</sup>.

**Table 11.7**  
**Distribution of Residential Interstate Wireless Minutes**  
**By Day and Time <sup>1</sup>**

**2008**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	8.3 %	5.2 %	13.5 %
Tuesday	8.8	4.5	13.2
Wednesday	8.3	4.5	12.8
Thursday	8.5	4.2	12.7
Friday	8.4	4.3	12.7
Saturday	11.8	4.7	16.5
Sunday	12.3	6.3	18.6
<b>Total</b>	<b>66.2 %</b>	<b>33.8 %</b>	<b>100.0 %</b>

**Calls in sample = 32,010.**

**2007**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	8.7 %	4.6 %	13.3 %
Tuesday	8.2	4.6	12.8
Wednesday	7.7	4.7	12.3
Thursday	8.5	5.0	13.5
Friday	8.5	4.1	12.6
Saturday	12.5	4.1	16.6
Sunday	12.4	6.5	18.9
<b>Total</b>	<b>66.5 %</b>	<b>33.5 %</b>	<b>100.0 %</b>

**Calls in sample = 52,047.**

**2006**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	7.9 %	4.8 %	12.7 %
Tuesday	8.1	4.7	12.8
Wednesday	7.9	5.0	12.9
Thursday	8.1	5.0	13.1
Friday	8.2	4.2	12.4
Saturday	12.4	4.3	16.7
Sunday	12.7	6.6	19.3
<b>Total</b>	<b>65.3 %</b>	<b>34.7 %</b>	<b>100.0 %</b>

**Calls in sample = 81,632.**

**Note:** Individual figures may not add to totals due to rounding.

<sup>1</sup> Outgoing, itemized calls only. All seven-digit dialed calls are considered intrastate. 800-type calls and calls for which a cross-state distinction could not be made were excluded from this analysis. Note also that only data from first, second and third quarter 2008 were available for these calculations.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*<sup>®</sup>.

## **12 Price Indices for Telephone Services**

The Bureau of Labor Statistics (BLS) collects a variety of information on telephone service as part of three separate programs -- the Consumer Price Index (CPI), the Producer Price Index (PPI), and the Consumer Expenditure Survey. They can be found on the Internet at [www.bls.gov](http://www.bls.gov). The following material illustrates the range of information available from price indices.

### **1. Long-Term Trends in Price Indices**

A price index for telephone service was first published in 1935. Since that time, telephone prices have tended to increase at a slower pace than most other prices. Table 12.1 shows long-term changes in the consumer price indices for all items, all services, telephone services, each of the seven major categories that currently constitute the overall CPI and several services that are often characterized as being public utilities. Chart 12.1 shows the CPI telephone services trend as compared to the CPI all items trend from 1958 through 2008.

### **2. Comprehensive Price Indices**

The CPI index of telephone services is based on a market basket intended to represent the telephone-related expenditures of a typical urban household. It includes local, long distance, and cellular services. Beginning in 1988, the CPI for all items has consistently been higher than the CPI for telephone services as shown in Chart 12.1. The annual rates of change are shown in Table 12.2 and the associated chart for the overall CPI (which measures the impact of inflation on consumers) and the CPI for telephone services. In addition, Table 12.2 shows the gross domestic product chain-type price index (which measures inflation throughout the economy) prepared by the Department of Commerce's Bureau of Economic Analysis. Chart 12.2 shows the annual percentage changes for the overall CPI and CPI for telephone services.

### **3. Price Indices for Local Service**

The CPI index of local telephone charges is based on a broadly defined market basket that includes: monthly service charges, message unit charges, leased equipment, installation, service enhancements (such as tone dialing and call waiting), taxes, and subscriber line charges. In contrast, the PPI index of monthly residential rates is much more narrowly defined. It is based only on monthly service charges for residential service, optional touch-tone service, and subscriber line charges. It excludes taxes, charges for special services such as call waiting, and all other expenditures. The annual rates of change for these indices of local costs are presented in Table 12.3 and Chart 12.3.

### **4. Price Indices for Long Distance Service**

Price indices are available for intrastate toll and interstate toll services. These series are also presented in Table 12.3 and Chart 12.3.

## **5. Price-Index Limitations**

Price indices are less reliable when industries are changing rapidly. For example, in 1992, long distance carriers began to increase basic rates while greatly expanding their range of discount offerings. The fixed market basket of toll calls measured for the CPI did not fully reflect these discounts. In 1995, BLS made major changes to the PPI telephone series, and there are no data after July 1995 comparable with prior data. Because of these sorts of difficulties, measures of average revenues are sometimes used as alternatives to price indices.

**Table 12.1**  
**Long-Term Changes for Various Price Indices**  
**(Annual Rates of Change)**

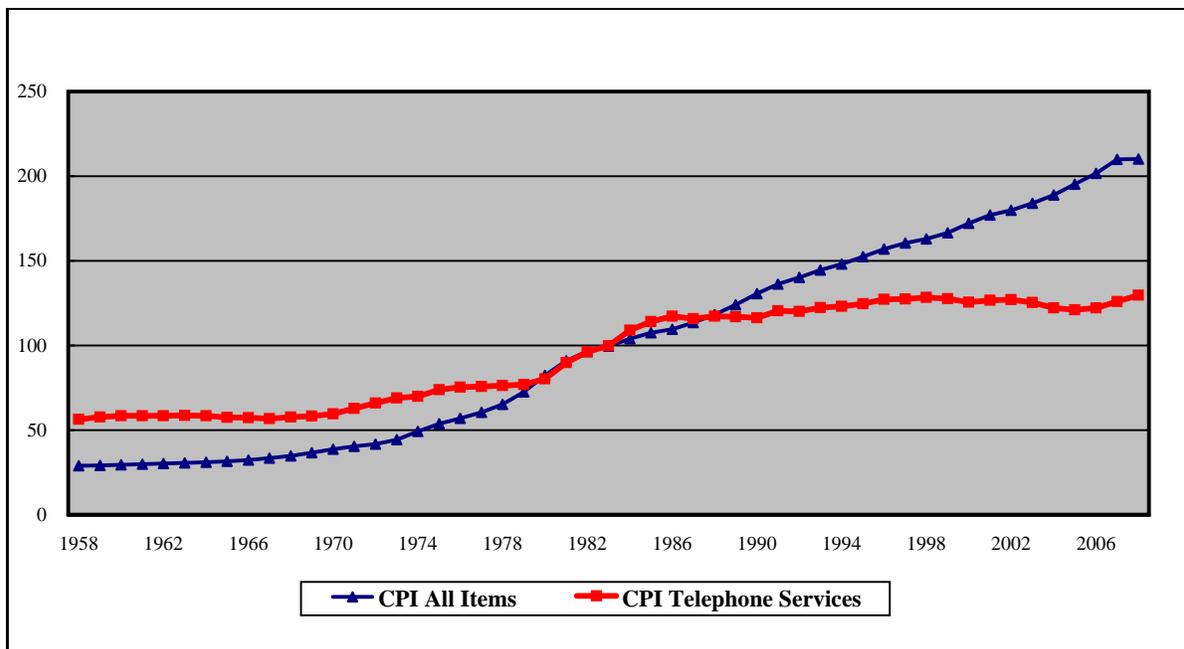
	1958 - 2008	1998 - 2008
CPI All Items	4.0 %	2.5 %
CPI All Services	5.0	3.3
CPI Telephone Services <sup>1</sup>	1.7	0.1
<b>CPI Major Categories:</b>		
- Food & Beverages	*	3.0
- Housing	*	3.0
- Apparel	1.9	-1.1
- Transportation	3.5	1.6
- Medical Care	5.9	4.1
- Recreation	*	1.2
- Other Goods & Services	*	3.4
CPI Public Transportation	4.9	2.3
CPI Utility (Piped) Gas Service	5.5	7.3
CPI Electricity	3.8	4.4
CPI Water & Sewerage Maintenance	5.6	4.5
CPI Postage	4.6	3.0

\* Series not established until after 1955.

<sup>1</sup> The CPI telephone service index was revised in December of 1997.

Source: Bureau of Labor Statistics.

**Chart 12.1**  
**CPI All Items and CPI Telephone Services**  
**Base Periods: 1982-84 = 100**



**Table 12.2**  
**Annual Changes in Major Price Indices**

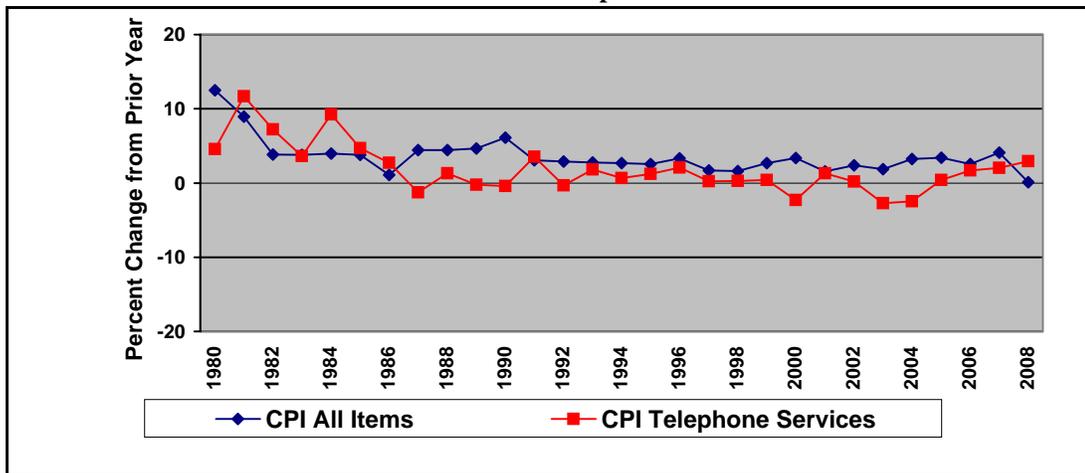
	<b>GDP Chain-Type Price Index</b>	<b>CPI - All Items</b>	<b>CPI - Telephone Services</b>
1980	9.7	12.5	4.6
1981	8.3	8.9	11.7
1982	5.2	3.8	7.2
1983	3.4	3.8	3.6
1984	3.6	3.9	9.2
1985	2.8	3.8	4.7
1986	2.3	1.1	2.7
1987	2.9	4.4	-1.3
1988	3.7	4.4	1.3
1989	3.5	4.6	-0.3
1990	4.1	6.1	-0.4
1991	3.1	3.1	3.5
1992	2.1	2.9	-0.3
1993	2.3	2.7	1.8
1994	2.2	2.7	0.7
1995	2.0	2.5	1.2
1996	1.9	3.3	2.1
1997	1.5	1.7	0.2
1998	1.1	1.6	0.3 *
1999	1.5	2.7	0.4
2000	2.3	3.4	-2.3
2001	2.5	1.6	1.3
2002	1.7	2.4	0.2
2003	2.2	1.9	-2.7
2004	3.2	3.3	-2.5
2005	3.5	3.4	0.4
2006	2.8	2.5	1.7
2007	2.6	4.1	2.1
2008	2.1	0.1	2.9

Note: All values calculated as the percent change from December of the previous year through December of the year shown, except the GDP price index, which is based on changes from the 4th quarter to 4th quarter.

\* The CPI telephone service index was revised in December of 1997.

Sources: Bureau of Labor Statistics and Bureau of Economic Analysis.

**Chart 12.2**  
**CPI All Items and CPI Telephone Services**



**Table 12.3**  
**Annual Changes in Price Indices for Local and Long Distance Telephone Services**

	Local Residential Service		Toll Service <sup>1</sup>			
			Interstate		Intrastate	
	CPI	PPI	CPI	PPI	CPI	PPI
1980	7.0	7.1	3.4	5.5	-0.6	2.3
1981	12.6	15.6	14.6	15.9	6.2	8.0
1982	10.8	9.0	2.7	3.9	4.2	1.7
1983	3.1	0.2	1.4	0.0	7.4	3.9
1984	17.2	10.4	-4.3	-5.1	3.6	3.8
1985	8.9	12.4	-3.7	-3.0	0.6	2.1
1986	7.1	8.9	-9.4	-10.0	0.3	-3.5
1987	3.3	2.6	-12.4	-11.8	-3.0	-3.0
1988	4.5	4.6	-4.2	-2.1	-4.2	-3.8
1989	0.6	1.9	-1.3	-1.7	-2.6	0.5
1990	1.0	1.5	-3.7	-0.1	-2.2	-2.2
1991	5.1	2.1	1.3	-1.3	-1.5	-2.6
1992	0.5	-0.2	-1.3	1.0	-2.4	1.3
1993	1.0	0.8	6.5	3.8	0.2	-1.1
1994	-0.3	0.7	5.4	6.1	-1.0	-1.4
1995	2.6	<sup>2</sup>	0.1	<sup>2</sup>	-3.8	<sup>2</sup>
1996	0.9	0.2	3.7	0.8	6.1	0.9
1997	1.0	0.1	-4.3	7.8	2.8	-4.3
1998	1.3	0.0	-0.8	-0.4	1.5	-3.7
1999	2.8	0.2	-0.7	2.4	-1.6	-2.8
2000	5.5	1.5	-11.2	-4.3	-6.0	0.2
2001	4.5	2.7	-2.0	-9.4	-1.7	1.7
2002	5.3	1.6	-5.9	-18.5	-6.1	-0.3
2003	2.6	1.9	-10.9	-2.4	-9.4	-12.6
2004	1.1	0.7	-8.7	0.7	-6.6	-2.9
2005	3.3	0.9	-3.0	7.4	0.4	0.2
2006	2.2	2.7	5.0	20.6	3.3	1.2
2007	4.1	1.6	2.4	10.8	5.9	9.2
2008	3.0	0.5	9.1	15.3	9.5	4.2

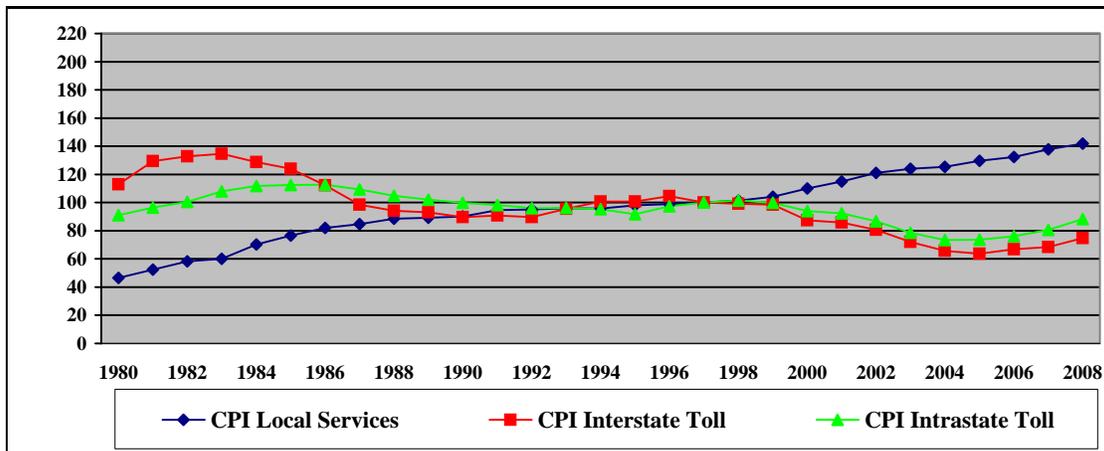
Note: Data reflect the percent change from December of the previous year through December of the year shown.

<sup>1</sup> The CPI toll indices represent rates for households. Through 1994, PPI toll indices represent rate changes for both business and residential consumers. Since 1995, PPI indices reflect rates for residential customers.

<sup>2</sup> The PPI telephone indices were revised in June of 1995. The series are not comparable.

Source: Bureau of Labor Statistics.

**Chart 12.3**  
**CPI Telephone Service Price Indices**  
**Base Periods: December 1997 = 100**



## **13 Price Levels**

### **1. Local Rates**

The price indices maintained by the Bureau of Labor Statistics indicate percentage changes in the price of telephone services. BLS does not publish actual rate levels. Calculations of average rates are based on surveys by FCC staff. These surveys use the same sampling areas and weights used by BLS in constructing the Consumer Price Index.

Table 13.1 presents average local rates for residential customers in urban areas. In October 2007, the average monthly charge was \$25.62 while the average charge for connecting phone service was \$43.22.

Table 13.2 presents average local rates for a business with a single phone line in an urban area. In October 2007, the average monthly charge was \$48.17 while the average charge for connecting phone service was \$68.74.

Table 13.3 presents the average local rate for a residential phone line from 1940 to 2007. The table shows, after adjusting for inflation, the price of a local exchange line declined from 1940 through the early 1980s.

### **2. Long Distance Rates**

Table 13.4 contains measures of average revenue per minute (ARPM) for long distance calls. Estimates of ARPM are often used interchangeably with estimates of the average price. From 1984 to 2007 the price of long distance calling dropped from 32 cents per minute to 8 cents per minute. The average price of 8 cents per minute represents a mix of international calling (9 cents per minute) and domestic interstate calling (7 cents per minute). The decline in prices since 1984 is more than 75% after adjusting for the impact of inflation.

Chart 13.1 shows that on a per minute basis, the cost of access and of contributing to universal service support has declined through 2002. These declines account for much of the decrease in interstate toll rates.

**Table 13.1**  
**Average Residential Rates for Local Service in Urban Areas, 1995 - 2007**  
**(As of October 15)**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Representative Monthly Charge <sup>1 2</sup>	\$13.62	\$13.71	\$13.67	\$13.75	\$13.77	\$13.64	\$14.49	\$14.38	\$14.54	\$14.57	\$14.66	\$15.03	\$15.62
Subscriber Line Charges	3.54	3.54	3.53	3.52	3.58	4.50	5.05	5.74	5.86	5.81	5.82	5.97	5.74
Additional Monthly Charge for Touch-Tone Service	0.44	0.30	0.25	0.10	0.09	0.06	0.04	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Taxes, 911, and Other Charges	2.41	2.40	2.42	2.39	2.48	2.57	3.03	3.94	4.12	4.14	4.15	4.26	4.26
<b>Total Monthly Charge</b>	<b>\$20.01</b>	<b>\$19.95</b>	<b>\$19.88</b>	<b>\$19.76</b>	<b>\$19.93</b>	<b>\$20.78</b>	<b>\$22.62</b>	<b>\$24.07</b>	<b>\$24.52</b>	<b>\$24.52</b>	<b>\$24.64</b>	<b>\$25.26</b>	<b>\$25.62</b>
Basic Connection Charge	\$40.91	\$41.11	\$41.04	\$41.24	\$41.26	\$41.45	\$40.02	\$39.83	\$39.22	\$39.26	\$39.62	\$39.68	\$39.81
Additional Connection Charge for Touch-Tone Service	0.23	0.23	0.17	0.12	0.12	0.12	0.12	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Taxes, 911, and Other Charges	2.44	2.36	2.46	2.38	2.57	2.53	2.81	1.33	3.32	3.44	3.17	3.45	3.41
<b>Total Connection Charge</b>	<b>\$43.58</b>	<b>\$43.70</b>	<b>\$43.67</b>	<b>\$43.74</b>	<b>\$43.95</b>	<b>\$44.10</b>	<b>\$42.95</b>	<b>\$41.16</b>	<b>\$42.54</b>	<b>\$42.71</b>	<b>\$42.80</b>	<b>\$43.13</b>	<b>\$43.22</b>
Additional Charge if Drop Line and Connection Block Needed	\$5.90	\$5.74	\$5.65	\$5.64	\$5.86	\$5.84	\$5.84	\$5.85	\$12.13	\$12.45	\$12.65	\$13.91	\$12.65
Lowest-Cost Inside Wiring Maintenance Plan	\$1.52	\$1.78	\$1.68	\$2.22	\$2.66	\$3.03	\$3.62	\$3.62	\$3.64	\$4.08	\$4.42	\$4.96	\$5.38

Note: Details may not add to totals due to rounding. Some previously published were revised. Data for 1986 through 1994 are available in prior year reports.

<sup>1</sup> Rates are based on flat-rate service where available, and measured/message service with one hundred five-minute, same-zone, business-day calls elsewhere. As of 2001, all 95 cities in the *Urban Rates Survey* offered flat-rate residential service, which made measuring the cost of such calls unnecessary.

<sup>2</sup> Beginning in 2002, additional monthly charges for touch-tone service are included in the monthly charge.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (2008).

**Table 13.2**  
**Average Local Rates for Businesses with a Single Line in Urban Areas**  
**(As of October 15)**

	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Monthly Representative Service Charge <sup>1</sup>	\$32.48	\$32.58	\$32.76	\$32.44	\$32.41	\$32.18	\$31.88	\$30.86	\$30.65	\$32.11	\$32.21	\$33.54	\$36.58
Subscriber Line Charges	3.57	3.54	3.54	3.54	3.52	4.39	4.91	5.63	5.76	5.71	5.71	5.90	5.73
Extra for Touch-Tone Service <sup>2</sup>	0.97	0.82	0.38	0.32	0.25	0.19	0.18	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Taxes, 911, and Other Charges	4.79	4.87	4.99	4.97	5.03	5.04	5.45	5.47	5.55	5.67	5.83	5.88	5.87
<b>Total Monthly Charge</b>	<b>\$41.80</b>	<b>\$41.81</b>	<b>\$41.67</b>	<b>\$41.27</b>	<b>\$41.21</b>	<b>\$41.80</b>	<b>\$42.43</b>	<b>\$41.95</b>	<b>\$41.96</b>	<b>\$43.49</b>	<b>\$43.75</b>	<b>\$45.32</b>	<b>\$48.17</b>
Monthly Charge for Flat-Rate Service	\$34.45	\$34.42	\$34.68	\$34.39	\$33.73	\$33.45	\$32.02	\$32.92	\$33.17	\$34.20	\$34.19	\$34.56	\$35.17
Subscriber Line Charges	3.69	3.61	3.61	3.56	3.50	4.35	4.77	5.77	6.03	6.01	6.03	6.16	6.16
Extra for Touch-Tone Service <sup>2</sup>	1.00	0.89	0.53	0.49	0.47	0.43	0.39	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Taxes, 911, and Other Charges	5.58	5.55	5.58	5.63	5.49	5.68	5.98	8.16	7.91	7.53	7.77	7.68	7.35
<b>Total Monthly Charge for Flat-Rate Service</b>	<b>\$44.71</b>	<b>\$44.47</b>	<b>\$44.39</b>	<b>\$44.07</b>	<b>\$43.20</b>	<b>\$43.90</b>	<b>\$43.15</b>	<b>\$46.85</b>	<b>\$47.12</b>	<b>\$47.74</b>	<b>\$47.99</b>	<b>\$48.39</b>	<b>\$48.67</b>
Number of Sample Cities with Flat-Rate Service	53	53	53	54	54	54	56	52	52	56	56	56	56
Monthly Charge for Measured/Message Service	\$17.06	\$17.26	\$17.28	\$17.16	\$17.06	\$16.92	\$17.16	\$17.56	\$17.21	\$18.49	18.30	\$16.41	\$18.59
200 Five-Minute Same-Zone Business-Day Calls	17.15	17.10	17.18	17.15	17.24	17.63	17.56	16.78	17.17	17.86	18.16	16.93	17.77
Subscriber Line Charges	3.54	3.51	3.51	3.53	3.52	4.39	4.90	5.56	5.65	5.86	5.80	5.49	5.57
Extra for Touch-Tone Service <sup>2</sup>	0.98	0.83	0.39	0.33	0.25	0.20	0.19	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Taxes, Including 911 Charges	5.01	5.13	5.22	5.19	5.28	5.32	5.76	4.71	4.78	5.07	5.14	4.74	5.07
<b>Total Monthly Charge for Measured/Message Service</b>	<b>\$43.75</b>	<b>\$43.84</b>	<b>\$43.57</b>	<b>\$43.35</b>	<b>\$43.35</b>	<b>\$44.45</b>	<b>\$45.57</b>	<b>\$44.61</b>	<b>\$44.82</b>	<b>\$47.29</b>	<b>\$47.40</b>	<b>\$43.57</b>	<b>\$47.00</b>
Number of Sample Cities with Measured/Message Service	87	86	85	85	85	85	85	86	85	86	85	78	78
Cost of a Five-Minute Same-Zone Business Day Call	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.09	\$0.10	\$0.10	\$0.09	\$0.11
Basic Connection Charge	\$67.87	\$68.47	\$68.67	\$65.83	\$67.87	\$67.77	\$67.04	\$67.29	\$67.23	\$67.24	\$67.35	\$62.55	\$62.67
Additional Connection Charge for Touch-Tone Service <sup>2</sup>	0.27	0.17	0.17	0.12	0.12	0.12	0.12	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>	<sup>2</sup>
Taxes, Including 911 Charges	4.17	4.20	4.45	4.13	4.53	4.40	4.69	5.09	6.95	6.42	6.15	6.41	6.06
<b>Total Connection Charge</b>	<b>\$72.31</b>	<b>\$72.85</b>	<b>\$73.29</b>	<b>\$70.09</b>	<b>\$72.55</b>	<b>\$72.29</b>	<b>\$71.86</b>	<b>\$72.39</b>	<b>\$74.18</b>	<b>\$73.66</b>	<b>\$73.50</b>	<b>\$68.96</b>	<b>\$68.74</b>
Additional Charge if Drop Line and Connection Block Needed	\$7.28	\$6.98	\$6.54	\$6.54	\$6.65	\$6.62	\$6.62	\$6.52	\$13.43	\$13.76	\$13.96	\$11.45	\$11.45
Lowest-Cost Inside Wiring Maintenance Plan	\$2.39	\$2.63	\$2.84	\$3.04	\$3.53	\$3.92	\$4.86	\$4.73	\$4.65	\$4.94	\$6.27	\$5.77	\$5.62

Note: Details may not add to totals due to rounding. Some previously published were revised. Data for 1989 through 1994 are available in prior year reports.

<sup>1</sup> Rates are based on flat-rate service where available, and measured/message service with 200 five-minute, same-zone, business-day calls elsewhere.

<sup>2</sup> Beginning in 2002, additional monthly charges for touch-tone service are included in the monthly charge.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (2008).

**Table 13.3**  
**Average Rate for a Residential Access Line**

	Consumer Price Index All Urban All Goods and Services (1982-1984 = 100)	Average Rate for a Residential Access Line			Consumer Price Index All Urban All Goods and Services (1982-1984 = 100)	Average Rate for a Residential Access Line	
		Survey Rate	Restated in 2008 Dollars			Survey Rate	Restated in 2008 Dollars
1940	14.0	\$3.67	\$56.44	1978	65.2	\$8.31	\$27.44
1941	14.7	3.67	53.75	1979	72.6	8.40	24.91
1942	16.3	3.64	48.08	1980	82.4	8.61	22.50
1943	17.3	3.64	45.30	1981	90.9	9.16	21.70
1944	17.6	3.66	44.77	1982	96.5	10.18	22.71
1945	18.0	3.67	43.90	1983	99.6	13.58	29.36
1946	19.5	3.67	40.52	1984	103.9	15.18	31.46
1947	22.3	3.70	35.72	1985	107.6	16.26	32.54
1948	24.1	3.91	34.93	1986	109.6	17.70	34.77
1949	23.8	4.02	36.37	1987	113.6	18.18	34.46
1950	24.1	4.29	38.33	1988	118.3	18.11	32.96
1951	26.0	4.48	37.10	1989	124.0	19.05	33.08
1952	26.5	4.62	37.54	1990	130.7	19.24	31.69
1953	26.7	4.93	39.75	1991	136.2	19.77	31.25
1954	26.9	5.10	40.82	1992	140.3	19.72	30.26
1955	26.8	5.19	41.69	1993	144.5	19.95	29.73
1956	27.2	5.24	41.48	1994	148.2	19.81	28.78
1957	28.1	5.28	40.46	1995	152.4	20.01	28.27
1958	28.9	5.36	39.93	1996	156.9	19.95	27.38
1959	29.1	5.51	40.77	1997	160.5	19.88	26.67
1960	29.6	5.55	40.37	1998	163.0	19.76	26.10
1961	29.9	5.61	40.40	1999	166.6	19.93	25.76
1962	30.2	5.62	40.07	2000	172.2	20.78	25.98
1963	30.6	5.65	39.75	2001	177.1	22.62	27.50
1964	31.0	5.66	39.31	2002	179.9	24.07	28.81
1965	31.5	5.67	38.75	2003	184.0	24.52	28.69
1966	32.4	5.64	37.48	2004	188.9	24.52	27.95
1967	33.4	5.60	36.10	2005	195.3	24.64	27.16
1968	34.8	5.61	34.71	2006	201.6	25.26	26.98
1969	36.7	5.68	33.32	2007	207.3	25.62	26.61
1970	38.8	5.76	31.96	2008	215.3		
1971	40.5	6.04	32.11				
1972	41.8	6.38	32.86				
1973	44.4	6.69	32.44				
1974	49.3	7.08	30.92				
1975	53.8	7.32	29.29				
1976	56.9	7.81	29.55				
1977	60.6	8.07	28.67				

Sources: Averages for 1940 through 1982 are from an AT&T local rate survey and represent January 1 rates. These averages exclude taxes and are for rotary service including the cost of a telephone. See *Reference Book of Rates, Price Indices and Expenditures for Telephone Service*, Wireline Competition Bureau. Starting in 1983, averages are from the *Urban Rates Survey* and represent October 15 rates. These averages include taxes and are for touch tone service but do not include telephone rental charges or any unbundled inside wiring maintenance plan charges. The 2005 and 2006 rates are revised.

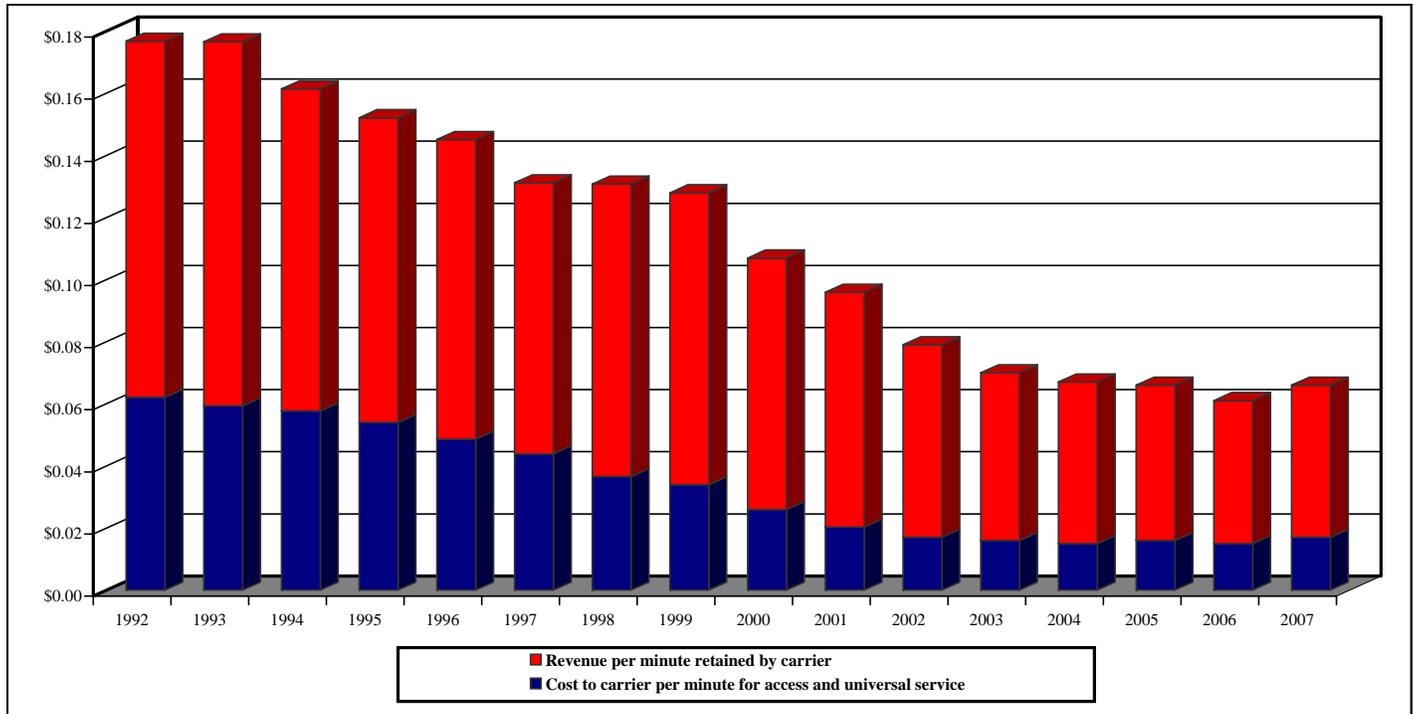
**Table 13.4**  
**Average Revenue per Minute**

	Consumer Price Index All Goods and Services (1982-1984 = 100)	Average Revenue Per Minute for Interstate and International Calls		Consumer Price Index All Goods and Services (1982-1984 = 100)	Average Revenue Per Minute for Interstate and International Calls					
			Restated in 2008 Dollars		Interstate and International Calls		International Calls 1/	Interstate Calls		
						Restated in 2008 Dollars			Net of Access and Universal Service Cost	
1930	16.7	\$0.27	\$3.54	1970	38.8	\$0.23	\$1.28	\$2.43	\$0.20	
1931	15.2	0.27	3.81	1971	40.5	0.25	1.30	2.35	0.22	
1932	13.7	0.26	4.12	1972	41.8	0.24	1.26	2.31	0.21	
1933	13.0	0.28	4.56	1973	44.4	0.25	1.23	2.29	0.22	
1934	13.4	0.27	4.37	1974	49.3	0.26	1.12	2.25	0.22	
1935	13.7	0.27	4.17	1975	53.8	0.27	1.09	2.23	0.24	
1936	13.9	0.25	3.89	1976	56.9	0.29	1.08	2.20	0.25	
1937	14.4	0.22	3.24	1977	60.6	0.28	1.01	2.18	0.25	
1938	14.1	0.21	3.27	1978	65.2	0.29	0.95	2.09	0.25	
1939	13.9	0.22	3.34	1979	72.6	0.29	0.86	1.76	0.26	
1940	14.0	0.21	3.23	1980	82.4	0.30	0.79	1.34	0.27	
1941	14.7	0.21	3.04	1981	90.9	0.33	0.77	1.21	0.31	
1942	16.3	0.22	2.85	1982	96.5	0.34	0.76	1.09	0.32	
1943	17.3	0.21	2.62	1983	99.6	0.35	0.75	1.09	0.33	
1944	17.6	0.22	2.64	1984	103.9	0.32	0.67	1.05	0.30	
1945	18.0	0.21	2.54	1985	107.6	0.31	0.62	1.01	0.29	
1946	19.5	0.20	2.18	1986	109.6	0.28	0.55	0.97	0.26	
1947	22.3	0.19	1.85	1987	113.6	0.25	0.46	0.99	0.22	
1948	24.1	0.19	1.67	1988	118.3	0.23	0.43	1.02	0.21	
1949	23.8	0.19	1.71	1989	124.0	0.22	0.38	1.02	0.19	
1950	24.1	0.19	1.73	1990	130.7	0.20	0.33	1.00	0.17	
1951	26.0	0.20	1.66	1991	136.2	0.20	0.31	1.02	0.15	
1952	26.5	0.20	1.64	1992	140.3	0.19	0.30	1.01	0.15	\$0.09
1953	26.7	0.21	1.68	1993	144.5	0.19	0.29	1.02	0.15	0.09
1954	26.9	0.22	1.78	1994	148.2	0.18	0.26	0.93	0.14	0.08
1955	26.8	0.23	1.84	1995	152.4	0.17	0.24	0.91	0.12	0.07
1956	27.2	0.23	1.85	1996	156.9	0.16	0.22	0.76	0.12	0.08
1957	28.1	0.24	1.82	1997	160.5	0.15	0.20	0.69	0.11	0.06
1958	28.9	0.24	1.78	1998	163.0	0.14	0.19	0.58	0.11	0.08
1959	29.1	0.24	1.79	1999	166.6	0.14	0.18	0.54	0.11	0.08
1960	29.6	0.24	1.76	2000	172.2	0.12	0.15	0.52	0.09	0.06
1961	29.9	0.25	1.79	2001	177.1	0.10	0.12	0.35	0.08	0.06
1962	30.2	0.25	1.80	2002	179.9	0.09	0.11	0.28	0.07	0.05
1963	30.6	0.25	1.75	2003	184.0	0.08	0.09	0.21	0.06	0.05
1964	31.0	0.25	1.73	2004	188.9	0.08	0.09	0.14	0.06	0.05
1965	31.5	0.24	1.64	2005	195.3	0.07	0.08	0.10	0.07	0.05
1966	32.4	0.24	1.61	2006	201.6	0.07	0.07	0.10	0.06	0.04
1967	33.4	0.24	1.56	2007	207.3	0.08	0.08	0.09	0.07	0.04
1968	34.8	0.24	1.46	2008	215.3					
1969	36.7	0.24	1.41							

1/ Starting in 1992, billed revenue per minute for international service differs in Table 6.1 and Table 13.4. Data in Table 6.1 are calculated using all U.S. billed minutes and revenues. Data for Table 13.4 represent charges for most U.S. billed calls that originate or terminate in the United States. International-to-international revenues and reorigination, country-beyond and country-direct minutes are not included in this table.

Sources: Estimates for 1930 through 1981 are based on information in AT&T's *Long Lines Statistics*, 1930-1963, 1946-1970, and 1960-1981, and appear to represent data for the conterminous U.S. only. Data prior to 1946 may not be comparable. Data for 1982 and 1983 were estimated using BLS price index changes. Data for 1984 through 1991 were supplied by AT&T. Starting with 1992, data are from the Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues*. For 1970 through 1991, interstate revenue per minute was estimated using the combined interstate and international revenue per minute estimates shown in the table, and international revenue and revenue per minute data in Table 1 and Table 2 of *Trends in the International Telecommunications Industry*.

**Chart 13.1**  
**Revenue per Minute for Interstate Calls**



Item	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Revenue per minute retained by carrier	\$0.115	\$0.117	\$0.104	\$0.098	\$0.097	\$0.087	\$0.094	\$0.094	\$0.081	\$0.076	\$0.062	\$0.054	\$0.052	\$0.050	\$0.046	\$0.049
Cost to carrier per minute for access and universal service	\$0.062	\$0.059	\$0.058	\$0.054	\$0.049	\$0.044	\$0.037	\$0.034	\$0.026	\$0.020	\$0.017	\$0.016	\$0.015	\$0.016	\$0.015	\$0.017

## 14 Residential Wireline Usage

Bill Harvesting® data collected by TNS Telecoms provides information on actual usage in the residential telecom market as collected from the actual telecommunications bills of households. TNS Telecoms (TNS), a telecommunications market information firm, conducts nationwide surveys and Bill Harvesting® on a quarterly basis from over 120,000 households each year. These surveys, in which households are asked to mail copies of their phone bills for one month to TNS, are called Bill Harvesting studies. The company has donated databases containing information on residential phone usage to the Commission.

The Bill Harvesting data reflect calls itemized on residential telephone bills for wireline service. The figures have not been adjusted to take into account the fact that call itemization is increasingly omitted from customer bills. Thus, 800 and 800-like calls made from the residence are not included, nor are collect calls made from the residence. In contrast, 800 and 800-like calls received, and shown on the household monthly bill, are included, as are collect calls received.

Table 14.1 shows the percentage of residential wireline long distance telephone usage that is intrastate, interstate and international. In 2008, 34% of residential toll phone calls were interstate as opposed to 47% of minutes. Table 14.2 shows the average number of toll minutes on residential phone bills that are intrastate, interstate and international from 1995-2008.

Table 14.3 shows the distribution of residential wireline long distance calls by call duration. The average interstate residential call lasts about nine minutes, although about 42% of interstate toll calls last one minute or less. Tables 14.4 and 14.5 show the duration and the average distance (sometimes called length of haul) of residential wireline intrastate and interstate long distance calls, respectively. The average distance of an interstate toll call in 2008 was 765 miles, as opposed to about 55 miles for an intrastate toll call.

Table 14.6 shows the percentage of residential wireline long distance minutes by day of week and time of day. Over the past three years, these data indicate that interLATA wireline traffic has been slowly moving to weekdays from nights and weekends.

**Table 14.1**  
**Distribution of Residential Wireline Toll Calls and Minutes**

Type	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
<b>Calls</b>														
IntraLATA-Intrastate	41 %	40 %	38 %	38 %	39 %	39 %	42 %	44 %	45 %	44 %	44 %	45 %	44 %	44 %
InterLATA-Intrastate	19	18	19	19	18	17	18	17	17	17	16	16	16	16
IntraLATA-Interstate	1	1	1	1	1	1	1	1	1	1	1	1	1	1
InterLATA-Interstate	37	35	37	36	37	36	36	34	33	34	35	32	33	33
International	1	1	1	1	1	1	1	1	2	2	2	2	2	2
Others <sup>1</sup>	2	5	5	4	4	5	2	2	2	2	2	3	3	4
<b>Total Calls in Sample</b>	<b>197,787</b>	<b>165,465</b>	<b>483,685</b>	<b>578,850</b>	<b>474,408</b>	<b>538,337</b>	<b>456,328</b>	<b>427,781</b>	<b>340,763</b>	<b>312,918</b>	<b>265,194</b>	<b>247,425</b>	<b>208,877</b>	<b>182,065</b>
<b>Minutes</b>														
IntraLATA-Intrastate	28 %	29 %	27 %	27 %	28 %	29 %	30 %	32 %	35 %	32 %	32 %	34 %	33 %	33 %
InterLATA-Intrastate	18	18	18	18	17	17	18	18	16	17	16	16	16	16
IntraLATA-Interstate	1	1	1	1	1	1	1	1	1	1	1	1	1	1
InterLATA-Interstate	50	47	49	49	49	47	48	46	44	46	46	45	46	46
International	2	1	1	1	2	2	2	2	2	3	3	3	3	3
Others <sup>1</sup>	1	4	4	3	3	5	1	1	1	1	1	2	2	2
<b>Total Minutes in Sample</b>	<b>1,493,674</b>	<b>1,210,675</b>	<b>3,673,315</b>	<b>4,330,888</b>	<b>3,544,905</b>	<b>4,030,643</b>	<b>3,319,982</b>	<b>2,992,644</b>	<b>2,308,266</b>	<b>2,088,773</b>	<b>1,766,565</b>	<b>1,614,546</b>	<b>1,376,557</b>	<b>1,194,486</b>

Note: Includes itemized calls only. Figures may not add to totals due to rounding.

<sup>1</sup> Toll-free (800, 888, 877, 866) calls billed to residential customers, 900 calls and calls that cannot be classified.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecom*ReQuest Market Monitor*<sup>TM</sup>, Bill Harvesting®.

**Table 14.2**  
**Average Residential Wireline Monthly Toll Minutes**

Type	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
IntraLATA-Intrastate	40	41	41	40	36	33	32	28	25	18	17	16	14	12
InterLATA-Intrastate	26	26	27	26	23	19	19	16	12	10	8	8	7	6
IntraLATA-Interstate	1	1	1	1	1	1	1	1	1	1	0	1	0	0
InterLATA-Interstate	71	67	73	71	65	55	51	41	31	26	24	22	19	16
International	3	1	2	2	2	2	2	2	2	2	2	2	1	1
Others <sup>1</sup>	1	6	6	5	4	5	1	1	1	1	0	1	1	1
<b>All Types</b>	<b>143</b>	<b>143</b>	<b>149</b>	<b>144</b>	<b>131</b>	<b>116</b>	<b>105</b>	<b>90</b>	<b>71</b>	<b>56</b>	<b>51</b>	<b>49</b>	<b>42</b>	<b>36</b>

Note: Includes itemized calls only. Figures may not add to totals due to rounding.

<sup>1</sup> Toll-free (800, 888, 877, 866) minutes billed to residential customers, 900 minutes and minutes for calls that cannot be classified.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecom*ReQuest Market Monitor*<sup>TM</sup>, Bill Harvesting®.

**Table 14.3**  
**Distribution of Residential Wireline Long Distance Call Durations:**  
**2008 <sup>1</sup>**

<b>Duration of Call (Minutes)</b>	<b>Intrastate</b>	<b>Interstate</b>	<b>All Calls</b>
1	49.2 %	42.3 %	46.6 %
2	14.2	11.0	13.0
3	7.4	5.8	6.8
4	4.7	4.1	4.5
5	3.4	3.1	3.3
6	2.6	2.6	2.6
7	1.9	2.3	2.1
8	1.6	2.0	1.8
9	1.4	1.7	1.5
10	1.3	1.6	1.4
11-15	4.0	6.1	4.8
16-20	2.4	4.2	3.1
21-25	1.7	3.2	2.2
26-30	1.1	2.3	1.6
31-45	1.7	3.9	2.6
46-60	0.7	1.9	1.1
> 60	0.7	1.8	1.1
Average Duration	5.3	8.9	6.7
Median Duration	2.0	2.0	2.0
Sample Size	102,830	62,031	164,861

<sup>1</sup> The sample includes domestic, directly-dialed calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*<sup>®</sup>.

**Table 14.4**  
**Duration and Distance of Intrastate Toll Calls <sup>1</sup>**

	Duration (In Minutes)		Distance (In Miles)	
	Average	Median	Average	Median
1995	6.0	2.0	53.0	26.0
1996	6.0	2.0	55.0	28.0
1997	6.2	2.0	56.0	28.0
1998	6.0	2.0	55.0	29.0
1999	6.0	2.0	54.0	29.0
2000	6.1	2.0	54.0	28.0
2001	5.9	2.0	53.0	29.0
2002	5.6	2.0	52.0	28.0
2003	5.6	2.0	51.0	28.0
2004	5.3	2.0	55.8	29.5
2005	5.4	2.0	54.6	29.2
2006	5.2	2.0	54.6	30.6
2007	5.3	2.0	54.2	30.0
2008	5.3	2.0	55.0	31.8

<sup>1</sup> Direct-dial calls carried by long distance carriers and local exchange carriers. Includes only domestic calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*<sup>®</sup>.

**Table 14.5**  
**Duration and Distance of Interstate Toll Calls <sup>1</sup>**

	Duration (In Minutes)		Distance (In Miles)	
	Average	Median	Average	Median
1995	10.6	4.0	689	507
1996	10.0	4.0	670	473
1997	10.3	4.0	695	480
1998	10.3	4.0	691	493
1999	10.0	3.9	693	501
2000	10.0	4.0	706	524
2001	9.7	3.0	686	501
2002	9.4	3.0	692	489
2003	8.9	3.0	684	481
2004	8.9	2.0	721	525
2005	8.8	2.0	759	568
2006	8.9	2.0	751	575
2007	9.0	2.0	763	594
2008	8.9	2.0	765	577

<sup>1</sup> Direct-dial calls carried by long distance carriers and local exchange carriers. Includes only domestic calls.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms *ReQuest Market Monitor*<sup>TM</sup>, *Bill Harvesting*<sup>®</sup>.

**Table 14.6**  
**Distribution of Residential Wireline Long Distance Minutes**  
**By Day and Time**

**2008**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	9.9 %	4.7 %	14.6 %
Tuesday	10.1	4.7	14.7
Wednesday	9.5	5.0	14.5
Thursday	9.4	4.8	14.2
Friday	9.0	4.0	13.0
Saturday	9.3	3.8	13.1
Sunday	11.0	5.0	16.0
<b>Total</b>	<b>68.1 %</b>	<b>31.9 %</b>	<b>100.0 %</b>

Based on a sample of 88,682 directly-dialed, interLATA calls.

**2007**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	9.6 %	5.2 %	14.9 %
Tuesday	9.2	5.0	14.2
Wednesday	9.1	4.9	13.9
Thursday	9.1	4.8	13.9
Friday	9.2	4.2	13.3
Saturday	9.3	4.0	13.3
Sunday	11.3	5.2	16.6
<b>Total</b>	<b>66.8 %</b>	<b>33.2 %</b>	<b>100.0 %</b>

Based on a sample of 102,515 directly-dialed, interLATA calls.

**2006**

<b>Day</b>	<b>7:00 AM - 6:59 PM</b>	<b>7:00 PM - 6:59 AM</b>	<b>Total</b>
Monday	9.8 %	5.2 %	15.0 %
Tuesday	8.7	5.0	13.7
Wednesday	8.4	5.1	13.5
Thursday	8.7	5.0	13.7
Friday	8.7	4.5	13.2
Saturday	9.6	3.7	13.4
Sunday	11.9	5.6	17.6
<b>Total</b>	<b>65.9 %</b>	<b>34.1 %</b>	<b>100.0 %</b>

Based on a sample of 118,243 directly-dialed, interLATA calls.

**Note:** Individual figures may not add to totals due to rounding.

Source: Calculated by Industry Analysis and Technology Division staff using survey data from TNS Telecoms ReQuest Market Monitor™, Bill Harvesting®.

## 15 Revenues

In 1993, the Commission required all carriers with interstate revenues to begin filing an annual Telecommunications Relay Service (TRS) Fund Worksheet. Because revenues derived from providing access to the interstate network are considered to be interstate, virtually all carriers were required to file information. Starting in 1997, larger carriers were required to file Universal Service Fund (USF) worksheets, which contain similar information but with breakouts for revenues from service provided for resale and for service provided to end users. End-user revenues include revenues associated with services to end users and do not include resale (carrier's carrier) revenues. Carrier's carrier revenues are sales of telecommunications to universal service contributors for resale in the form of telecommunications. Filers report all other revenues as end-user revenues.<sup>1</sup> On April 1, 2000, carriers first filed an FCC Form 499-A Telecommunications Reporting Worksheet to report prior year revenue data for TRS, USF, North American Numbering Planning Administration, and local number portability contribution purposes. The FCC Form 499-A superseded the older reporting requirements and is now filed to satisfy carrier registration requirements at the Commission as well. The carriers also file quarterly data reported on Form 499Q.

Table 15.1 shows the major components of telecommunications revenues from 1999 to the present: carrier's carrier revenues and end-user revenues for local, wireless, and toll service. Chart 15.1 shows the trend of the end-user revenue percentages for local, wireless and toll services. Table 15.2 shows how revenues by type of service have changed over time. Table 15.3 shows the number of telecommunications service providers by principal type of business. The publication *Telecommunications Provider Locator* (January 2010 edition) lists carriers that filed a FCC Form 499-A worksheet in 2008. It also contains an address and contact telephone number for each carrier. Table 15.4 contains revenues for eleven years through 2008 by type of carrier. Additional revenue detail can be found in the latest *Telecommunications Industry Revenue* report (September 2010 edition).

State-level telephone revenues are estimated using data from various editions of *Telecommunications Industry Revenue*, *Statistics of Communications Common Carriers*, *Local Telephone Competition*, and access filings to the FCC.<sup>2</sup>

---

<sup>1</sup> Carrier's carrier revenues and end-user revenues are defined in the FCC Form 499 instructions. Carrier's carrier revenues includes, for example, most access services that local exchange carriers provide to toll carriers. Sales to *de minimis* carriers and to others that are exempt from universal service contribution requirements, however, must be classified as end-user revenues. Filers contribute to the universal service funding mechanism based on types of end-user revenues.

<sup>2</sup> See Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (various issues), Industry Analysis Division, Common Carrier Bureau, *State-by-State Telephone Revenues and Universal Service Data* (various issues).

Table 15.5 provides estimates of telecommunications revenues by state for 1998 to 2007. Table 15.6 provides estimates of end-user and carrier's carrier revenues by state for 2007. Table 15.7 provides estimates of telecommunications revenues for incumbent local exchange carriers, competitive local exchange carriers, and mobile wireless carriers by state; as well as estimates for subscriber line charges, access, and toll services.

**Table 15.1**  
**Telecommunications Industry Revenues**<sup>1</sup>  
(Dollar Amounts Shown in Millions)

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	Preliminary 5/ 2009
<b>Carrier's Carrier Revenues</b> <sup>2</sup>											
Local Service <sup>3</sup>	\$33,156	\$36,621	\$40,108	\$38,412	\$37,742	\$38,546	\$39,213	\$39,392	\$38,383	\$39,200	\$41,868
Wireless Service	4,652	5,144	6,180	5,020	4,465	4,164	6,334	5,187	5,360	5,630	5,383
Toll Service	14,934	21,849	19,999	16,476	18,205	15,703	16,892	15,101	16,093	13,623	12,069
Intrastate	22,293	25,553	27,848	25,770	24,825	25,852	27,486	24,848	22,566	21,836	22,077
Interstate and International <sup>4</sup>	30,449	38,060	38,439	34,138	35,587	32,561	34,953	34,831	37,270	36,617	37,244
Total	52,742	63,613	66,287	59,907	60,412	58,413	62,439	59,679	59,836	58,452	59,320
<b>End User Revenues</b> <sup>2</sup>											
Local Service <sup>3</sup>	78,608	84,526	87,704	88,712	86,474	83,407	82,382	78,215	75,042	72,693	70,142
Wireless Service	43,843	56,857	68,507	76,501	85,254	94,404	100,743	110,096	115,865	118,855	115,505
Toll Service	93,311	87,767	79,302	67,222	58,983	55,511	52,358	49,278	48,709	47,365	39,259
Intrastate	134,919	147,465	155,347	154,815	150,889	153,265	154,310	157,653	158,380	157,737	150,316
Interstate and International <sup>4</sup>	80,844	81,685	80,165	77,619	79,822	80,057	81,173	79,937	81,235	81,176	74,590
Total	215,763	229,149	235,513	232,434	230,711	233,322	235,482	237,589	239,615	238,913	224,906
<b>Total Revenues</b>											
Local Service <sup>3</sup>	111,764	121,147	127,812	127,123	124,216	121,953	121,595	117,607	113,425	111,893	112,010
Wireless Service	48,495	62,000	74,687	81,521	89,718	98,568	107,076	115,283	121,225	124,485	120,888
Toll Service	108,246	109,615	99,301	83,697	77,188	71,214	69,250	64,379	64,802	60,988	51,328
Intrastate	157,212	173,018	183,195	180,585	175,714	179,117	181,796	182,501	180,946	179,573	172,393
Interstate and International <sup>4</sup>	111,293	119,745	118,605	111,756	115,409	112,617	116,125	114,768	118,505	117,793	111,833
Total	\$268,505	\$292,762	\$301,800	\$292,341	\$291,123	\$291,734	\$297,921	\$297,268	\$299,451	\$297,365	\$284,226

Note: Detail may not add to totals due to rounding. Data for 1997 and 1998 are available in prior year reports.

<sup>1</sup> Data include revenues for *de minimis* filers as well as for other carriers that are exempt from universal service contribution requirements.

<sup>2</sup> Carrier's carrier revenues are reported on the FCC Form 499-A as sales to other universal service contributors for resale. This includes, for example, access services that local exchange carriers provide to toll carriers. Sales to *de minimis* resellers, end-user customers, governments, non-profits, and any other non-contributors are treated as end-user revenues. Filers contribute to the universal service funding mechanisms based on their end-user revenues.

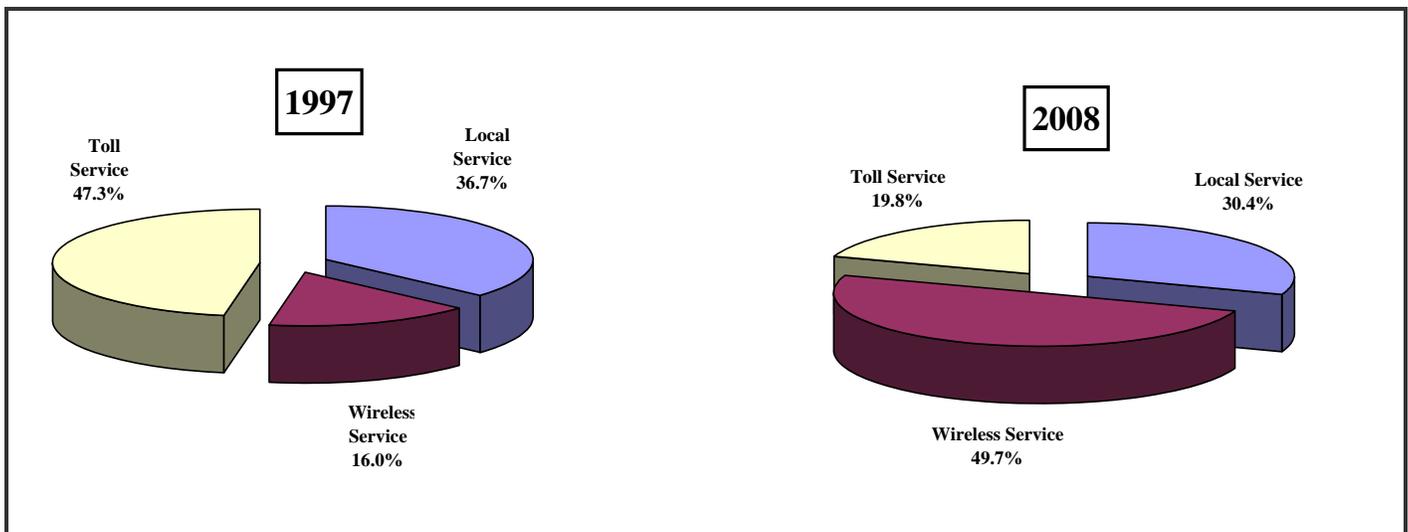
<sup>3</sup> Payphone revenues are included with local service revenues in this table.

<sup>4</sup> Revenues from calls that both originate and terminate in foreign points are reported as end-user revenues, and are included in this table through 2007, but are not included in the universal service contribution base, and are not included in the prior year reports.

<sup>5</sup> Preliminary 2009 data are based on FCC Form 499-Q quarterly filings. Companies that do not contribute to universal service are not required to make these filings. The quarterly filings include preliminary data for the just closed quarter and projections for the coming quarter, and therefore are not as accurate as the subsequent annual filings. Also, FCC Form 499-Q filers do not separate revenue by type of service. Therefore, revenue totals by service type for 2008 are based on type of filer rather than on data filed by service.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues*, except as noted.

**Chart 15.1**  
**End-User Telecommunications Revenues**



**Table 15.2**  
**Telecommunications Revenues Reported by Type of Service**  
**(Dollar Amounts Shown in Millions)**

Telecommunications Revenues	Universal Service & TRS Data	FCC Form 499-A Data									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Local Exchange	\$59,245	\$64,940	\$69,947	\$72,346	\$71,320	\$70,606	\$68,238	\$66,506	\$63,264	\$62,790	\$60,871
Pay Telephone 1/	2,536	2,218	1,932	1,585	1,192	1,063	1,002	924	659	470	379
Local Private Line 2/	10,403	12,914	16,864	21,966	23,070	22,415	23,840	25,673	25,448	24,307	26,314
Other Local	2,179	2,501	3,249	3,391	3,418	3,242	2,944	3,331	3,884	3,227	3,321
Subscriber Line Charges 2/	11,052	10,826	11,563	12,127	12,758	12,136	11,715	11,113	10,827	10,141	9,283
Access 2/	18,449	18,105	17,017	15,096	13,955	12,972	12,352	11,822	11,392	10,543	9,776
Universal Service Surcharges on Local Service Bills 3/	103	260	575	1,301	1,410	1,783	1,862	2,227	2,133	1,947	1,948
Additional Revenues from TRS Worksheets	595										
Total Local Service Revenues	104,563	111,764	121,147	127,812	127,123	124,216	121,953	121,595	117,607	113,425	111,893
Wireless Service	36,240	48,117	61,505	74,006	80,678	88,023	96,450	104,489	112,442	117,939	120,934
Universal Service Surcharges on Local Service Bills 3/	345	379	495	681	842	1,696	2,118	2,587	2,841	3,286	3,551
Additional Revenues from TRS Worksheets	189										
Total Wireless Service Revenues	36,775	48,495	62,000	74,687	81,521	89,718	98,568	107,076	115,283	121,225	124,485
Operator 1/	12,205	10,049	11,406	10,389	7,902	6,567	6,542	6,631	5,577	5,874	5,664
Non-Operator Switched Toll	74,168	78,389	75,183	65,325	54,475	50,178	46,387	44,876	41,570	42,518	38,959
Long Distance Private Line	11,952	13,169	16,189	16,402	15,108	15,316	13,906	13,264	12,739	12,080	11,683
Other Long Distance	3,386	3,656	3,372	3,259	2,445	2,222	1,801	2,021	2,154	1,661	2,071
Universal Service Surcharges on Local Service Bills 3/	1,810	2,983	3,467	3,927	3,767	2,905	2,577	2,458	2,340	2,669	2,611
Additional Revenues from TRS Worksheets	1,532										
Total Toll Service Revenues	105,055	108,246	109,615	99,301	83,697	77,188	71,214	69,250	64,379	64,802	60,988
Total Telecommunications Revenues	246,392	268,505	292,762	301,799	292,341	291,122	291,735	297,921	297,269	299,451	297,366
Non-Telecommunications Revenues	27,944	33,144	42,261	48,036	60,406	65,186	71,493	86,764	101,061	131,615	151,494
Total Reported Revenues	272,019	301,648	335,023	349,835	352,747	356,308	363,227	384,685	398,329	431,066	448,860
Service Reported as:											
Intrastate	142,108	157,212	173,018	183,195	180,585	175,714	179,129	181,796	182,501	180,946	179,573
Interstate and International	104,284	111,293	119,745	118,605	111,756	115,409	112,605	116,125	114,768	118,505	117,793
Total Telecommunications Revenues	\$246,392	\$268,505	\$292,762	\$301,799	\$292,341	\$291,123	\$291,734	\$297,921	\$297,268	\$299,451	\$297,365

Note: Detail may not add to totals due to rounding. Data for 1992 through 1997 are available in prior year reports.

- 1/ TRS filers generally reported pay telephone revenues as local service revenues, access revenues or operator toll revenues. The Universal Service and FCC Form 499-A Worksheets contain a separate category for payphone coin revenues. Starting in 1997, payphone revenues include payphone compensation received from toll carriers.
- 2/ TRS Worksheet filers generally reported special access revenues as access revenues.
- 3/ Charges on end-user bills identified as recovering state or federal universal service contributions are reported separately from local, wireless and toll revenues. Reported amounts are apportioned between local, wireless and toll service based on the proportions of local, wireless and toll intrastate and interstate revenues by type of carrier.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues*.

**Table 15.3**  
**Number of Interstate Telecommunications Providers**  
**By Principal Type of Business**

Service Provider Category 1/ 2/	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Incumbent Local Exchange Carriers (ILECs)	1,348	1,318	1,335	1,335	1,310	1,303	1,304	1,303	1,311	1,304	1,297
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	212	298	479	511	451	601	690	734	780	774	813
Local Resellers	54	73	105	132	100	100	136	122	133	124	129
Interconnected VoIP Providers									145	251	334
Other Local Exchange Carriers	10	23	23	26	64	72	92	187	169	163	186
Total: Competitors of ILECs	276	394	607	669	615	773	918	1,043	1,227	1,312	1,462
Total: Fixed Local Service Providers 3/	1,624	1,712	1,942	2,004	1,925	2,076	2,222	2,346	2,538	2,616	2,759
Payphone Providers	615	704	699	751	606	605	642	576	581	432	409
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers	808	784	783	670	422	413	396	402	426	428	412
Paging & Messaging Service	303	391	425	425	346	347	360	300	304	238	229
Specialized Mobile Radio (SMR) Dispatch	119	199	191	182	138	155	172	155	165	153	162
Wireless Data Service Providers and Other Mobile Service Providers	28	45	31	29	21	24	35	48	60	55	67
Total: Wireless Service Providers	1,258	1,419	1,430	1,306	927	939	963	905	955	874	870
Interexchange Carriers (IXCs)	171	178	212	233	229	232	257	262	270	250	237
Operator Service Providers (OSPs)	24	15	20	19	18	17	19	23	24	23	31
Prepaid Calling Card Providers	20	18	23	27	27	50	67	69	85	93	121
Satellite Service Carriers	13	17	25	34	33	40	40	40	39	41	45
Toll Resellers	388	406	493	558	574	642	751	721	744	693	654
VoIP Toll Providers										12	96
Audio Bridge Service Providers											68
Other Toll Carriers	31	17	35	69	51	45	70	63	76	80	64
Total: Toll Service Providers	647	651	808	940	932	1,026	1,204	1,178	1,238	1,192	1,316
All Filers	4,144	4,486	4,879	5,001	4,390	4,646	5,031	5,005	5,312	5,114	5,354

Note: Data for 1993 through 1997 are available in prior year reports.

- 1/ Filers are asked to select for themselves a service provider category that best describes their operations. The choices have changed over the years; for example, Interconnected VoIP category was added in 2007 for filers reporting 2006 revenues. Starting with the filings that included 2003 revenues, filers were able to identify up to five service provider types. Starting with 2003 data, counts are based on the category selected as best describing the provider's operations.
- 2/ Counts are based on the numbers of filers actually reporting U.S. telecommunications revenues. Counts dropped in 2002 because many affiliated filers were permitted to make consolidated filings.
- 3/ The total number of local service providers shown in Table 8.9 differs from the total fixed local service providers shown in Table 15.3 because the number shown in Table 8.9 includes filers that self identify as mobile or toll providers, but that report some local exchange service revenues. The number of telecommunications providers shown in Table 15.3 also differs from the numbers shown in Table 5.3 because Table 5.3 includes all filers, including new filers that reported no revenues for the year shown. Private telecommunications providers are included with other local competitors in this table. Filers that identified themselves as interconnected VoIP but that primarily provide international termination service are reclassified as other toll carriers.

Source: Data filed on FCC Forms 431, 457, and 499-A worksheets. See also: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* and *Telecommunications Provider Locator*, available at <http://www.fcc.gov/wcb/stats>.

**Table 15.4**  
**Gross Revenues Reported by Type of Carrier**  
**(Dollars Shown in Millions)**

Service Provider Category 1/	Universal Service & TRS Data	FCC Form 499 Data									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Incumbent Local Exchange Carriers	\$108,234	\$112,216	\$116,158	\$117,885	\$114,990	\$109,480	\$105,496	\$103,561	\$99,997	\$93,885	\$89,732
Competitive Access Providers (CAPs) and Competitive Local Exchange Carriers (CLECs)	3,348	5,652	9,814	12,998	13,043	15,509	15,112	16,930	17,276	17,476	20,980
Interconnected VoIP									514	2,394	3,541
Local Resellers	410	511	879	1,393	1,538	721	1,215	630	460	594	540
Other Local Exchange Carriers	36	171	11	329	406	338	245	216	124	181	288
Private Carriers	147	87	39	15	281	267	532	770	1,080	1,031	1,051
Shared-Tenant Service Providers	93	87	202	46	42	22	22	22	19	14	39
Total: Competitors of ILECs	4,034	6,508	10,945	14,781	15,309	16,857	17,126	18,568	19,473	21,690	26,440
Total: Fixed Local Service Providers	112,268	118,725	127,103	132,666	130,300	126,337	122,622	122,128	119,470	115,575	116,172
Total: Payphone Providers	1,101	1,213	972	836	641	523	445	481	435	388	275
Wireless Telephony Including Cellular, Personal Communications Service (PCS) and SMR Telephony Carriers	33,139	46,513	59,823	71,887	78,568	88,168	98,329	107,834	116,971	123,968	127,730
Paging & Messaging Service	3,161	3,232	3,102	2,197	1,473	1,007	872	579	555	607	426
Specialized Mobile Radio (SMR) Dispatch		186	191	214	206	33	46	226	48	188	40
Wireless Data Service Providers and Other Mobile Service Providers	731	221	164	110	220	135	218	169	178	180	119
Total: Wireless Service Providers	37,032	50,152	63,280	74,596	80,467	89,342	99,465	108,809	117,752	124,943	128,314
Interexchange Carriers (IXCs)	83,443	87,570	87,311	81,272	68,146	61,246	51,589	46,856	44,083	43,701	37,358
Operator Service Providers (OSPs)	590	337	635	611	554	567	523	548	631	595	1,063
Prepaid Calling Card Providers	888	866	727	133	460	812	1,635	1,828	1,713	2,195	1,999
Satellite Service Carriers	475	280	336	373	406	663	721	714	444	708	860
Toll Resellers	9,885	9,211	10,641	8,797	9,279	9,294	12,192	13,362	9,943	8,314	8,256
Audio Bridge Service Providers									42	58	273
Other Toll Carriers	710	150	1,758	2,516	2,089	2,339	2,543	3,195	2,756	2,973	2,795
Total: Toll Service Providers	95,992	98,414	101,407	93,702	80,934	74,920	69,204	66,503	59,611	58,545	52,604
Total Telecommunications Revenues	\$246,392	\$268,505	\$292,762	\$301,799	\$292,341	\$291,123	\$291,734	\$297,921	\$297,268	\$299,451	\$297,365

Note: Detail may not add to totals due to rounding. Data for 1992 through 1997 are available in prior year reports.

1/ Filers are asked to select for themselves a service provider category that best describes their operations. The choices have changed over the years. For example, most satellite service providers identified themselves as other toll carriers in their 1997 Form 431 TRS worksheets because that worksheet did not contain a separate category for satellite service providers. For 2003 and 2004, some filers identified themselves as all distance carriers. These filers have been reclassified to be consistent with prior classifications.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues*.

**Table 15.5**  
**Total Telecommunications Revenues by State**  
**(Dollar Amounts Shown in Millions)**

	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Alabama	\$3,394	\$3,712	\$4,008	\$4,314	\$4,052	\$4,196	\$4,318	\$4,587	\$4,580	\$4,619
Alaska	590	664	717	770	778	816	823	831	834	835
American Samoa	NA	NA	NA	13	13	13	15	17	19	21
Arizona	3,958	4,359	4,972	5,205	5,045	4,898	4,974	5,127	5,367	5,685
Arkansas	2,005	2,303	2,315	2,593	2,486	2,470	2,592	2,709	2,734	2,771
California	28,692	29,384	33,577	35,398	34,838	34,098	34,303	35,042	34,672	35,322
Colorado	4,260	4,826	5,290	5,515	5,308	5,013	4,984	5,013	5,071	5,067
Connecticut	3,173	3,405	3,924	4,020	3,854	3,884	3,821	3,929	3,709	3,745
Delaware	685	788	875	883	877	874	946	1,014	923	971
District of Columbia	1,085	1,581	1,648	1,383	1,343	1,337	1,296	1,397	1,340	1,380
Florida	15,042	17,223	18,308	18,849	18,223	18,613	20,003	19,918	19,355	18,969
Georgia	7,469	8,479	8,919	9,627	9,371	9,433	9,415	9,657	9,506	9,487
Guam	103	99	108	122	119	123	130	143	156	172
Hawaii	969	1,009	1,177	1,207	1,200	1,212	1,196	1,229	1,184	1,261
Idaho	1,010	1,092	1,210	1,245	1,244	1,237	1,223	1,300	1,322	1,390
Illinois	10,948	11,983	13,516	12,860	12,110	11,928	11,809	12,113	11,785	11,794
Indiana	4,810	5,099	5,552	5,524	5,385	5,292	5,298	5,389	5,446	5,524
Iowa	2,268	2,441	2,340	2,652	2,549	2,711	2,559	2,630	2,801	2,872
Kansas	2,304	2,588	2,571	2,656	2,479	2,473	2,436	2,488	2,602	2,631
Kentucky	3,060	3,426	3,573	3,665	3,301	3,307	3,634	3,856	3,842	3,894
Louisiana	3,432	3,913	3,964	4,274	4,185	4,232	4,278	4,430	4,403	4,369
Maine	1,105	1,195	1,328	1,387	1,365	1,359	1,353	1,425	1,374	1,411
Maryland	4,911	5,176	5,783	6,202	6,033	6,073	6,163	6,441	6,245	6,266
Massachusetts	6,338	6,561	7,428	7,367	7,121	6,983	6,897	6,962	7,112	6,963
Michigan	8,523	9,530	9,937	9,889	9,450	9,352	8,897	9,089	8,925	8,745
Minnesota	4,115	4,617	4,877	4,934	4,772	4,682	4,578	4,629	4,711	4,722
Mississippi	2,017	2,283	2,486	2,633	2,578	2,676	2,768	2,834	2,815	2,695
Missouri	4,613	5,442	5,688	6,067	5,436	5,676	5,522	5,750	5,808	5,925
Montana	780	897	937	903	907	911	897	912	921	957
Nebraska	1,587	1,737	1,760	1,865	1,796	1,799	1,744	1,749	1,746	1,745
Nevada	1,592	1,884	1,954	2,160	2,163	2,267	2,348	2,407	2,496	2,591
New Hampshire	1,246	1,313	1,429	1,419	1,399	1,373	1,362	1,474	1,418	1,412
New Jersey	9,366	9,558	10,670	10,689	10,251	10,054	10,258	10,493	9,554	9,535
New Mexico	1,433	1,518	1,515	1,656	1,631	1,706	1,767	1,775	1,823	1,891
New York	17,935	19,700	20,903	21,771	21,148	20,660	19,593	19,724	20,431	20,465
North Carolina	7,297	8,006	8,619	8,811	8,368	8,321	8,482	8,558	8,505	8,757
North Dakota	599	660	731	699	678	641	630	645	654	642
Northern Mariana Islands	30	34	32	43	46	44	44	45	43	43
Ohio	9,396	9,952	10,902	10,708	10,351	10,419	10,489	10,736	10,632	10,789
Oklahoma	2,552	2,727	2,915	3,116	3,100	3,210	3,169	3,185	3,240	3,297
Oregon	2,905	3,123	3,159	3,480	3,381	3,337	3,356	3,292	3,366	3,456
Pennsylvania	10,309	10,770	12,200	12,578	12,274	12,087	12,063	12,166	12,035	12,260
Puerto Rico	1,467	2,051	1,971	2,598	2,168	2,456	2,354	2,537	2,698	2,538
Rhode Island	859	946	1,012	989	978	965	980	963	1,012	1,047
South Carolina	3,393	3,790	4,047	4,147	4,142	4,187	4,124	4,306	4,276	4,314
South Dakota	635	716	763	712	690	668	667	712	743	757
Tennessee	4,553	4,928	5,256	5,574	5,409	5,466	5,442	5,738	5,995	5,902
Texas	17,576	19,032	21,405	21,617	21,549	21,508	21,610	22,162	22,817	22,941
Utah	1,557	1,790	1,998	2,090	2,016	1,986	2,003	2,062	2,160	2,217
Vermont	602	684	717	659	640	629	590	663	670	691
Virgin Islands	109	122	129	145	157	172	190	214	229	215
Virginia	6,576	7,020	8,013	8,506	8,174	8,107	8,074	8,134	7,931	8,324
Washington	5,080	5,703	6,253	6,260	6,215	6,090	6,172	6,005	5,955	5,827
West Virginia	1,383	1,437	1,625	1,735	1,671	1,674	1,707	1,732	1,728	1,794
Wisconsin	4,234	4,719	5,195	5,027	4,976	4,859	4,821	5,000	4,974	4,949
Wyoming	462	513	563	587	552	567	567	584	576	594
<b>Total</b>	<b>\$246,392</b>	<b>\$268,505</b>	<b>\$292,762</b>	<b>\$301,799</b>	<b>\$292,341</b>	<b>\$291,123</b>	<b>\$291,734</b>	<b>\$297,921</b>	<b>\$297,268</b>	<b>\$299,452</b>

NA - Not Available.

Note: Figures may not add to totals due to rounding.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (various issues) and Industry Analysis Division, Common Carrier Bureau, *State-by-State Telephone Revenue and Universal Service Data* (various issues).

**Table 15.6**  
**Telecommunications Revenues by State: 2007**  
**(Dollar Amounts Shown in Millions)**

	End User			Carrier's Carrier			Total: End User + Carrier's Carrier			
	Interstate	Intrastate	Total	Interstate	Intrastate	Total	Interstate	Intrastate	Total	Percent of Total
Alabama	\$1,246	\$2,503	\$3,749	\$522	\$347	\$869	\$1,768	\$2,851	\$4,619	1.54 %
Alaska	264	394	657	121	56	177	385	450	835	0.28
American Samoa	5	12	17	2	2	4	7	14	21	0.01
Arizona	1,646	2,891	4,537	766	381	1,148	2,412	3,272	5,685	1.90
Arkansas	742	1,462	2,204	362	205	567	1,104	1,667	2,771	0.93
California	9,050	19,189	28,239	4,145	2,937	7,083	13,195	22,126	35,322	11.80
Colorado	1,456	2,496	3,952	766	349	1,115	2,222	2,845	5,067	1.69
Connecticut	1,088	1,925	3,013	527	204	731	1,616	2,129	3,745	1.25
Delaware	298	473	771	147	53	200	446	526	971	0.32
Dist. of Columbia	379	694	1,073	228	79	307	607	773	1,380	0.46
Florida	5,386	9,991	15,376	2,219	1,373	3,592	7,605	11,364	18,969	6.33
Georgia	2,615	5,038	7,653	1,194	640	1,835	3,809	5,678	9,487	3.17
Guam	61	72	133	28	10	38	89	83	172	0.06
Hawaii	368	644	1,011	158	92	250	525	736	1,261	0.42
Idaho	411	668	1,079	214	97	311	625	765	1,390	0.46
Illinois	3,289	6,327	9,616	1,376	801	2,177	4,665	7,128	11,794	3.94
Indiana	1,545	2,896	4,442	670	412	1,082	2,216	3,308	5,524	1.84
Iowa	824	1,391	2,216	396	260	657	1,221	1,651	2,872	0.96
Kansas	742	1,367	2,110	359	162	521	1,102	1,529	2,631	0.88
Kentucky	1,048	2,086	3,134	437	322	760	1,485	2,409	3,894	1.30
Louisiana	1,138	2,460	3,599	439	331	770	1,577	2,791	4,369	1.46
Maine	347	774	1,121	181	109	290	528	883	1,411	0.47
Maryland	1,805	3,190	4,995	872	398	1,270	2,677	3,589	6,266	2.09
Massachusetts	1,828	3,771	5,600	897	466	1,364	2,726	4,238	6,963	2.33
Michigan	2,283	4,785	7,068	973	704	1,677	3,256	5,489	8,745	2.92
Minnesota	1,291	2,448	3,740	643	339	982	1,934	2,788	4,722	1.58
Mississippi	724	1,469	2,193	307	195	501	1,031	1,663	2,695	0.90
Missouri	1,590	3,025	4,615	743	567	1,310	2,332	3,592	5,925	1.98
Montana	278	461	739	135	83	218	413	544	957	0.32
Nebraska	463	896	1,359	232	154	386	695	1,051	1,745	0.58
Nevada	809	1,287	2,096	343	151	494	1,152	1,438	2,591	0.87
New Hampshire	399	717	1,117	193	102	295	593	819	1,412	0.47
New Jersey	2,732	4,836	7,568	1,323	645	1,967	4,055	5,481	9,535	3.18
New Mexico	551	912	1,463	279	149	428	830	1,061	1,891	0.63
New York	5,153	11,173	16,326	2,460	1,679	4,139	7,613	12,852	20,465	6.83
North Carolina	2,450	4,652	7,102	997	658	1,655	3,447	5,309	8,757	2.92
North Dakota	172	323	495	92	54	147	265	377	642	0.21
N. Mariana Islands	12	22	34	6	3	9	18	25	43	0.01
Ohio	2,835	5,808	8,643	1,250	896	2,146	4,085	6,704	10,789	3.60
Oklahoma	878	1,752	2,630	439	228	667	1,317	1,980	3,297	1.10
Oregon	981	1,746	2,728	476	252	728	1,457	1,999	3,456	1.15
Pennsylvania	3,359	6,330	9,689	1,604	967	2,571	4,963	7,296	12,260	4.09
Puerto Rico	731	1,383	2,113	287	138	425	1,018	1,520	2,538	0.85
Rhode Island	277	579	856	120	71	191	397	650	1,047	0.35
South Carolina	1,196	2,289	3,484	495	335	830	1,690	2,624	4,314	1.44
South Dakota	229	360	588	104	65	169	333	424	757	0.25
Tennessee	1,631	3,251	4,881	635	387	1,021	2,265	3,637	5,902	1.97
Texas	5,672	12,658	18,330	2,753	1,859	4,611	8,424	14,517	22,941	7.66
Utah	625	1,121	1,746	315	155	471	941	1,276	2,217	0.74
Vermont	203	339	542	102	47	149	305	386	691	0.23
Virgin Islands	88	76	164	40	11	51	129	87	215	0.07
Virginia	2,353	4,208	6,561	1,173	590	1,763	3,526	4,798	8,324	2.78
Washington	1,644	3,005	4,649	755	423	1,178	2,399	3,428	5,827	1.95
West Virginia	525	881	1,406	251	137	388	776	1,018	1,794	0.60
Wisconsin	1,344	2,593	3,937	619	392	1,012	1,963	2,986	4,949	1.65
Wyoming	176	281	456	96	41	137	272	322	594	0.20
Total	\$81,236	\$158,380	\$239,616	\$37,270	\$22,566	\$59,836	\$118,506	\$180,947	\$299,452	100.00

Note: Figures may not add to totals due to rounding.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (December 2009).

**Table 15.7**  
**Telecommunications Revenues by Type of Service: 2007**  
(Dollar Amounts Shown in Millions)

	Mobile						Total
	ILECs <sup>1</sup>	CLECs	Wireless	SLCs <sup>2</sup>	Access	Toll	
Alabama	\$1,129	\$225	\$1,831	\$174	\$304	\$955	\$4,619
Alaska	NA	NA	NA	NA	NA	NA	835
American Samoa	NA	NA	NA	NA	NA	NA	21
Arizona	880	788	2,355	187	506	968	5,685
Arkansas	606	135	1,092	88	261	590	2,771
California	6,696	2,189	15,340	1,068	3,307	6,721	35,322
Colorado	1,077	321	1,908	205	557	999	5,067
Connecticut	842	197	1,415	137	312	842	3,745
Delaware	189	75	368	37	89	214	971
District of Columbia	364	104	491	35	148	238	1,380
Florida	4,129	981	7,748	770	1,345	3,997	18,969
Georgia	2,211	551	3,859	337	731	1,798	9,487
Guam	NA	NA	NA	NA	NA	NA	172
Hawaii	249	66	542	57	114	234	1,261
Idaho	296	59	517	57	158	303	1,390
Illinois	2,318	717	5,053	385	851	2,470	11,794
Indiana	1,192	221	2,259	233	460	1,159	5,524
Iowa	539	189	1,045	93	316	689	2,872
Kansas	497	264	1,084	74	220	493	2,631
Kentucky	858	248	1,575	144	295	774	3,894
Louisiana	1,039	274	1,834	161	235	826	4,369
Maine	341	102	448	48	114	358	1,411
Maryland	1,254	398	2,447	222	559	1,386	6,266
Massachusetts	1,372	654	2,686	235	564	1,452	6,963
Michigan	1,671	697	3,724	294	715	1,644	8,745
Minnesota	853	498	1,947	156	468	801	4,722
Mississippi	688	94	1,051	96	162	602	2,695
Missouri	1,247	330	2,275	206	629	1,238	5,925
Montana	203	62	330	42	104	215	957
Nebraska	320	195	673	47	187	324	1,745
Nevada	452	269	1,063	71	172	564	2,591
New Hampshire	249	129	494	49	125	365	1,412
New Jersey	1,620	677	3,768	348	944	2,178	9,535
New Mexico	394	58	719	92	229	400	1,891
New York	3,801	2,166	8,076	600	1,741	4,081	20,465
North Carolina	1,912	639	3,536	338	593	1,739	8,757
North Dakota	118	53	250	20	78	122	642
N. Mariana Islands	NA	NA	NA	NA	NA	NA	43
Ohio	2,241	807	4,430	362	911	2,037	10,789
Oklahoma	705	317	1,306	103	295	571	3,297
Oregon	653	246	1,413	129	353	662	3,456
Pennsylvania	2,238	1,149	4,673	478	1,211	2,512	12,260
Puerto Rico	546	98	1,180	81	142	492	2,538
Rhode Island	146	220	421	26	61	173	1,047
South Carolina	988	263	1,696	158	300	909	4,314
South Dakota	107	88	289	22	79	172	757
Tennessee	1,375	365	2,525	223	308	1,107	5,902
Texas	5,290	1,404	9,544	686	2,078	3,939	22,941
Utah	360	183	952	76	244	401	2,217
Vermont	172	36	190	29	58	206	691
Virgin Islands	NA	NA	NA	NA	NA	NA	215
Virginia	1,553	792	3,123	299	816	1,742	8,324
Washington	997	362	2,557	213	568	1,130	5,827
West Virginia	451	92	556	74	155	467	1,794
Wisconsin	994	516	1,849	180	430	980	4,949
Wyoming	124	35	208	24	71	132	594
<b>Total</b>	<b>\$60,770</b>	<b>\$21,690</b>	<b>\$121,205</b>	<b>\$10,323</b>	<b>\$25,799</b>	<b>\$59,659</b>	<b>\$299,452</b>

NA - Not Applicable.

Note: Figures may not add to totals due to rounding.

<sup>1</sup> Excludes subscriber line charges.

<sup>2</sup> Includes ILECs' USF pass-thru charges.

<sup>3</sup> Totals in the first six columns include revenues for locations not estimated.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Monitoring Report* (December 2009).

## 16 Subscribership

Under contract with the FCC, the U.S. Census Bureau includes questions on telephones as part of its *Current Population Survey (CPS)*. This survey, which monitors demographic trends between the decennial censuses, has several strengths: it is conducted regularly by an expert agency, the sample is large, and the questions are consistent. Thus, changes in the results can be compared over time with a great deal of confidence.

More than thirty-four million households have been added to the nation's telephone system since these surveys began in November 1983, reflecting both an increase in the total number of households and a small, but statistically significant, increase in the percentage of households that subscribe to telephone service.

Because of smaller sample sizes, state-by-state data, shown in Table 16.3, are subject to greater sampling errors than the national data shown in Table 16.1. These two tables are based on the Census Bureau's Current Population Survey. Additional information can be found in the *Telephone Penetration* and *Telephone Subscribership* reports available on the Internet on the Wireline Competition Bureau Statistical Reports web page at [www.fcc.gov/wcb/stats](http://www.fcc.gov/wcb/stats).

Historical estimates for the United States, using the decennial census population counts, are shown in Table 16.2. Prior to 1980, historical estimates of telephone penetration were based on a comparison of the number of residential main stations to the number of households. These estimates became less reliable at that point because of the emergence of an increasing number of households with multiple phone lines. In the 1980 decennial census, the question "Do you have a telephone?" was added to the long-form questionnaire. The 1980 and 1990 percentages in Table 16.2 are based on those responses. In the 2000 decennial census, the question was changed to "Is there telephone service available in this [housing unit] from which you can both make and receive calls?" The question was changed in 2000 to avoid the possible bias from having a phone but no service. With the telephone companies no longer owning the telephone instruments beginning in 1984, it is possible for someone to have a telephone but not have service. The question also allows for the possibility of the substitution of wireless service for wireline service. Beginning in 2001 the Census Bureau introduced the American Community Survey (ACS), which was designed to replace the long form of the decennial census, and Table 16.2 includes data from that survey as well. Table 16.2 also documents the per capita changes in wireline phone lines and wireless subscribers over time. The decennial census percentages in 1990 and 2000 and the ACS percentages for 2001 to 2008 reported in Table 16.2 are higher than the CPS percentage reported in Table 16.1. We believe that these differences are due to factors such as the slight differences in the questions and the contexts in which they are asked, as well as the fact that the CPS uses households as the basis of measurement, while the census and the ACS use occupied housing units instead.

Further information from the ACS is shown in Tables 16.4 and 16.5. Table 16.4 shows state data and Table 16.5 shows other characteristics including housing unit tenure, age of the householder, and race and ethnicity of the householder.

**Table 16.1**  
**Household Telephone Subscribership in the United States**

Date	Households (millions)	Households with Telephones (millions)	Percentage with Telephones	Households without Telephones (millions)	Percentage without Telephones
November 1983	85.8	78.4	91.4%	7.4	8.6%
March 1984	86.0	78.9	91.8%	7.1	8.2%
July 1984	86.6	79.3	91.6%	7.3	8.4%
November 1984	87.4	79.9	91.4%	7.5	8.6%
March 1985	87.4	80.2	91.8%	7.2	8.2%
July 1985	88.2	81.0	91.8%	7.2	8.2%
November 1985	88.8	81.6	91.9%	7.2	8.1%
March 1986	89.0	82.1	92.2%	6.9	7.8%
July 1986	89.5	82.5	92.2%	7.0	7.8%
November 1986	89.9	83.1	92.4%	6.8	7.6%
March 1987	90.2	83.4	92.5%	6.8	7.5%
July 1987	90.7	83.7	92.3%	7.0	7.7%
November 1987	91.3	84.3	92.3%	7.0	7.7%
March 1988	91.8	85.3	92.9%	6.5	7.1%
July 1988	92.4	85.7	92.8%	6.7	7.2%
November 1988	92.6	85.7	92.5%	6.9	7.5%
March 1989	93.6	87.0	93.0%	6.6	7.0%
July 1989	93.8	87.5	93.3%	6.3	6.7%
November 1989	93.9	87.3	93.0%	6.6	7.0%
March 1990	94.2	87.9	93.3%	6.3	6.7%
July 1990	94.8	88.4	93.3%	6.4	6.7%
November 1990	94.7	88.4	93.3%	6.3	6.7%
March 1991	95.3	89.2	93.6%	6.1	6.4%
July 1991	95.5	89.1	93.3%	6.4	6.7%
November 1991	95.7	89.4	93.4%	6.3	6.6%
March 1992	96.6	90.7	93.9%	5.9	6.1%
July 1992	96.6	90.6	93.8%	6.0	6.2%
November 1992	97.0	91.0	93.8%	6.0	6.2%
March 1993	97.3	91.6	94.2%	5.7	5.8%
July 1993	97.9	92.2	94.2%	5.7	5.8%
November 1993	98.8	93.0	94.2%	5.8	5.8%
March 1994	98.1	92.1	93.9%	6.0	6.1%
July 1994	98.6	92.4	93.7%	6.2	6.3%
November 1994	99.8	93.7	93.8%	6.2	6.2%
March 1995	99.9	93.8	93.9%	6.1	6.1%
July 1995	100.0	94.0	94.0%	6.0	6.0%
November 1995	100.4	94.2	93.9%	6.2	6.1%
March 1996	100.6	94.4	93.8%	6.2	6.2%
July 1996	101.2	95.0	93.9%	6.1	6.1%
November 1996	101.3	95.1	93.9%	6.2	6.1%
March 1997	102.0	95.8	93.9%	6.2	6.1%
July 1997	102.3	96.1	93.9%	6.2	6.1%
November 1997	102.8	96.5	93.8%	6.3	6.2%
March 1998	103.4	97.4	94.1%	6.1	5.9%
July 1998	103.4	97.3	94.1%	6.1	5.9%
November 1998	104.1	98.0	94.2%	6.1	5.8%
March 1999	104.8	98.5	94.0%	6.3	6.0%
July 1999	105.1	99.2	94.4%	5.9	5.6%
November 1999	105.4	99.1	94.1%	6.3	5.9%
March 2000	105.3	99.6	94.6%	5.7	5.4%
July 2000	105.8	99.8	94.4%	5.9	5.6%
November 2000	106.5	100.2	94.1%	6.3	5.9%
March 2001	107.0	101.1	94.6%	5.8	5.4%
July 2001	106.9	101.7	95.1%	5.2	4.9%
November 2001	107.7	102.2	94.9%	5.5	5.1%
March 2002	108.3	103.4	95.5%	4.8	4.5%
July 2002	108.5	103.2	95.1%	5.3	4.9%
November 2002	109.0	104.0	95.3%	5.1	4.7%
March 2003	112.1	107.1	95.5%	5.0	4.5%
July 2003	112.1	106.8	95.2%	5.3	4.8%
November 2003	113.1	107.1	94.7%	6.0	5.3%
March 2004	112.9	106.4	94.2%	6.5	5.8%
July 2004	113.5	106.5	93.8%	7.1	6.2%
November 2004	113.8	106.4	93.5%	7.4	6.5%
March 2005	114.5	105.8	92.4%	8.7	7.6%
July 2005	114.4	107.5	94.0%	6.8	6.0%
November 2005	115.2	107.0	92.9%	8.2	7.1%
March 2006	115.5	107.2	92.8%	8.4	7.2%
July 2006	116.2	109.9	94.6%	6.3	5.4%
November 2006	116.4	108.8	93.4%	7.6	6.6%
March 2007	117.1	110.8	94.6%	6.4	5.4%
July 2007	117.7	111.7	95.0%	5.9	5.0%
November 2007	118.2	112.2	94.9%	6.0	5.1%
March 2008	117.8	112.2	95.2%	5.6	4.8%
July 2008	118.0	112.6	95.4%	5.5	4.6%
November 2008	118.6	112.7	95.0%	5.9	5.0%

Note: Details may not appear to add to totals due to rounding.  
Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telephone Subscribership in the United States* (June 2009). Based on data from the Census Bureau's Current Population Survey.

**Table 16.2**  
**Historical Telephone Penetration Estimates**

<b>Year</b>	<b>Percentage of Housing Units with Telephones</b>	<b>Telephone Wire Lines per 100 Population</b>	<b>Wireless Subscribers per 100 Population</b>
1920	35.0 %	9.6	
1930	40.9	12.5	
1940	36.9	12.7	
1950	61.8	21.7	
1960	78.3	27.6	
1970	90.5	35.0	
1980	92.9	45.1	
1990	94.8	54.7	1.8
2000	97.6	67.9	34.5
2001	96.9	67.4	41.5
2002	96.6	65.7	46.8
2003	96.2	63.8	51.0
2004	95.7	61.5	57.9
2005	94.8	60.1	65.8
2006	94.1	57.7	73.6
2007	94.6	54.2	80.8
2008	98.2	50.9	86.4

Sources: Percentage data for 1920 to 1970 from the U.S. Census Bureau, *Historical Statistics of the United States, Colonial Times to 1970*, Part 2, page 783. Percentage data for 1980 to 2000 from the decennial censuses. Percentage data for 2001 to 2007 from the Census Bureau's American Community Survey. Telephone line data for 1920 through 1970 are estimated by multiplying the number of telephones by the proportion of main plus equivalent main stations to total telephones for the Bell System. Prior to 1950, the 1950 proportion is used. For 1980 and 1990, ILEC local loops are used; see Table 7.1. For 2000 to 2008, June ILEC and CLEC lines are used from Table 1 of Industry Analysis and Technology Division, Wireline Competition Bureau, *Local Telephone Competition: Status as of June 30, 2008* (July 2009). June wireless subscribers reported by CTIA are from Table 11.1. For 1920 to 2000, the population from the decennial census is used. For 2001 to 2008, Census Bureau population estimates for July 1 are used.

**Table 16.3**  
**Telephone Penetration by State**  
**(Annual Average Percentage of Households with Telephone Service)**

State	1984	2008	Change
Alabama	88.4 %	94.0 %	5.6 % *
Alaska	86.5	96.4	9.8 *
Arizona	86.9	94.6	7.6 *
Arkansas	86.6	92.9	6.3 *
California	92.5	96.5	4.0 *
Colorado	93.2	98.0	4.8 *
Connecticut	95.5	97.1	1.6
Delaware	94.3	94.7	0.5
District of Columbia	94.9	92.0	-2.9
Florida	88.7	93.0	4.3 *
Georgia	86.2	92.9	6.7 *
Hawaii	93.5	96.5	2.9
Idaho	90.7	96.0	5.3 *
Illinois	94.2	94.1	-0.1
Indiana	91.6	92.1	0.5
Iowa	96.2	97.4	1.2
Kansas	94.3	96.4	2.0
Kentucky	88.1	94.1	5.9 *
Louisiana	89.7	95.7	6.0 *
Maine	93.4	97.8	4.4 *
Maryland	95.7	94.7	-1.0
Massachusetts	95.9	96.4	0.6
Michigan	92.8	96.0	3.1 *
Minnesota	95.8	98.2	2.3
Mississippi	82.4	92.7	10.3 *
Missouri	91.5	96.8	5.3 *
Montana	91.0	94.5	3.5 *
Nebraska	95.7	94.7	-1.0
Nevada	90.4	94.0	3.7 *
New Hampshire	94.3	97.7	3.3 *
New Jersey	94.8	94.8	0.0
New Mexico	82.0	92.6	10.6 *
New York	91.8	94.4	2.6 *
North Carolina	88.3	93.5	5.2 *
North Dakota	94.6	98.3	3.7 *
Ohio	92.4	96.9	4.5 *
Oklahoma	90.3	95.3	5.0 *
Oregon	90.6	97.6	7.0 *
Pennsylvania	94.9	97.9	3.0 *
Rhode Island	93.6	96.4	2.8
South Carolina	83.7	90.8	7.1 *
South Dakota	93.2	96.8	3.6 *
Tennessee	88.5	93.0	4.5 *
Texas	88.4	94.3	5.9 *
Utah	92.5	96.9	4.3 *
Vermont	92.3	97.0	4.8 *
Virginia	93.1	95.7	2.6 *
Washington	93.0	98.1	5.0 *
West Virginia	87.7	94.5	6.8 *
Wisconsin	95.2	97.2	2.0
Wyoming	89.9	95.8	5.9 *
United States	91.6 %	95.2 %	3.6 % *

Note: Differences may not appear to equal changes due to rounding.

\* Increase is statistically significant at the 95% confidence level.

# Decrease is statistically significant at the 95% confidence level.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telephone Subscribership in the United States* (June 2009). Based on data from the Census Bureau's Current Population Survey.

**Table 16.4**  
**Telephone Penetration by State**  
**(Percentage of Occupied Housing Units with Telephone Service)**

<b>State</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Alabama	95.2 %	95.3 %	95.1 %	94.5 %	93.3 %	92.6 %	93.9 %	98.0 %
Alaska	96.6	97.9	96.7	97.6	96.6	96.3	97.7	98.1
Arizona	95.8	95.6	95.0	95.2	93.1	93.6	93.7	97.0
Arkansas	94.7	94.3	92.5	91.0	90.9	90.3	91.3	97.6
California	98.0	98.3	98.3	97.9	97.0	96.6	96.7	98.7
Colorado	98.5	97.4	97.0	96.5	95.1	94.6	94.3	98.2
Connecticut	98.8	98.7	98.2	98.3	97.3	96.5	96.8	99.1
Delaware	98.2	98.2	97.7	97.9	97.5	97.0	95.8	98.7
District of Columbia	97.1	97.5	96.9	96.1	95.2	94.5	92.6	97.8
Florida	97.0	96.6	96.3	95.5	94.0	92.4	93.4	97.9
Georgia	95.6	95.5	95.0	94.1	92.9	90.9	92.7	97.1
Hawaii	97.9	97.0	96.3	95.2	95.6	95.7	94.9	98.1
Idaho	96.2	97.4	96.3	95.7	96.2	94.2	94.2	99.0
Illinois	95.9	95.7	95.4	94.7	94.4	93.7	94.8	98.6
Indiana	95.4	94.7	93.7	93.4	94.4	93.4	94.2	98.4
Iowa	97.6	97.4	96.6	95.6	96.0	94.9	95.3	98.9
Kansas	96.9	96.3	95.8	95.7	93.6	92.7	93.8	98.9
Kentucky	96.0	94.8	95.0	93.3	92.0	91.9	93.1	97.8
Louisiana	95.3	95.4	94.7	92.9	92.9	91.6	92.5	97.3
Maine	98.8	98.2	98.4	97.7	96.6	95.7	95.9	98.8
Maryland	97.7	97.5	97.5	97.0	95.8	95.3	95.6	99.0
Massachusetts	98.5	98.6	98.5	97.9	96.2	95.5	96.1	98.8
Michigan	96.4	95.5	95.1	94.4	93.4	92.1	93.0	98.6
Minnesota	98.7	98.2	98.5	97.4	96.7	95.8	95.4	99.2
Mississippi	93.3	93.4	92.8	91.4	89.6	88.4	91.2	96.9
Missouri	96.6	96.7	96.3	96.1	95.4	93.6	94.3	98.5
Montana	97.1	96.9	96.5	95.1	95.0	93.6	93.7	97.5
Nebraska	97.2	96.4	95.6	94.8	95.5	94.4	94.5	99.0
Nevada	95.2	95.3	94.4	95.2	95.9	94.6	94.3	97.6
New Hampshire	98.7	98.5	98.1	98.2	96.9	97.0	97.5	98.6
New Jersey	98.0	97.7	97.6	96.9	95.8	95.3	95.1	97.9
New Mexico	92.9	90.7	93.0	94.4	92.5	91.7	92.4	95.7
New York	97.2	96.9	96.8	96.5	95.5	94.8	95.0	97.9
North Carolina	96.5	95.6	94.1	94.5	93.8	93.2	93.4	98.1
North Dakota	97.8	97.3	96.8	95.9	94.7	94.7	94.8	99.2
Ohio	97.7	96.7	97.1	96.2	95.4	94.2	94.6	98.1
Oklahoma	95.7	93.9	94.7	93.7	93.1	92.9	93.2	98.0
Oregon	98.0	97.1	96.9	96.0	95.3	95.2	94.9	98.7
Pennsylvania	97.8	98.0	97.5	97.2	96.5	95.9	95.9	98.8
Rhode Island	98.3	97.8	97.7	96.8	96.4	95.6	96.0	97.8
South Carolina	96.0	94.7	94.7	93.6	92.3	92.0	93.2	97.2
South Dakota	97.6	96.8	96.1	95.8	95.3	96.0	95.3	98.6
Tennessee	96.8	96.3	95.1	95.2	92.9	92.8	93.7	98.1
Texas	95.9	95.4	94.3	93.7	92.9	92.6	93.5	98.0
Utah	97.4	97.7	97.5	97.4	96.5	96.2	96.0	99.3
Vermont	98.1	98.1	97.7	97.6	97.9	97.2	96.9	98.8
Virginia	97.3	97.0	97.0	95.8	95.6	95.2	95.2	98.3
Washington	97.5	97.8	97.0	96.5	96.5	96.2	96.3	99.0
West Virginia	95.1	95.9	94.8	94.0	94.5	93.8	93.6	96.9
Wisconsin	97.9	97.5	96.3	95.5	96.4	95.6	96.1	99.0
Wyoming	95.1	94.9	94.5	94.4	94.9	93.4	95.0	98.7
United States	96.9 %	96.6 %	96.2 %	95.7 %	94.8 %	94.1 %	94.6 %	98.2 %
Puerto Rico	NA	NA	NA	NA	73.8 %	73.6 %	80.6 %	91.9 %

Source: Census Bureau, American Community Survey and Puerto Rico Community Survey.

**Table 16.5**  
**Telephone Penetration by Selected Characteristics**  
**(Percentage of Occupied Housing Units with Telephone Service)**

<b>Characteristic</b>	<b>2001</b>	<b>2002</b>	<b>2003</b>	<b>2004</b>	<b>2005</b>	<b>2006</b>	<b>2007</b>	<b>2008</b>
Housing Unit Status								
Owner Occupied	98.8 %	98.7 %	98.5 %	98.3 %	97.7 %	97.1 %	97.1 %	99.3 %
Renter Occupied	93.4	92.6	91.6	90.4	89.0	87.9	89.5	96.2
Age of Householder								
15 - 34	94.5	93.6	92.0	90.2	88.0	86.3	87.8	93.4
35 - 64	97.3	97.2	97.1	96.7	96.1	95.4	95.6	98.4
65 +	98.7	98.6	98.7	98.7	98.6	98.5	98.5	99.2
Race of Householder								
White	97.6	97.3	96.9	96.3	95.6	NA	NA	NA
Black or African American	93.6	93.0	93.0	92.3	91.9	NA	NA	NA
American Indian or Alaska Native	89.1	89.5	87.8	89.6	86.8	NA	NA	NA
Asian	98.4	98.0	97.5	96.9	95.5	NA	NA	NA
Native Hawaiian or Pacific Islander	95.9	95.5	91.4	92.2	93.1	NA	NA	NA
Other	94.6	95.1	93.9	93.3	91.0	NA	NA	NA
Two or More Races	95.1	92.7	95.6	92.8	92.7	NA	NA	NA
Ethnicity of Householder								
Hispanic or Latino	94.2	93.9	93.4	92.6	91.6	NA	NA	NA
United States	96.9 %	96.6 %	96.2 %	95.7 %	94.8 %	94.1 %	94.6 %	98.2 %

NA - Not available

Source: Census Bureau, American Community Survey.

## 17 Technology and Infrastructure

Price-cap regulated carriers, including the Bell operating companies (BOCs), file data on technology as part of their Automated Reporting Management Information System (ARMIS) reports. The data contained in Tables 17.1 and 17.3 are from the BOCs' ARMIS 43-07 reports<sup>1</sup>, and the data contained in Table 17.2 are from the ARMIS 43-05 report. The individual carrier's data can be obtained from the ARMIS web page at [www.fcc.gov/wcb/eafs](http://www.fcc.gov/wcb/eafs). Selected holding company statistics from the ARMIS 43-07, through 2007, can be found in Section 10 of our *Monitoring Report* on the web page [www.fcc.gov/wcb/iatd/monitor](http://www.fcc.gov/wcb/iatd/monitor). Also, information about broadband deployment is contained in Chapter 2, *Advanced Telecommunications*.

### 1. Central Office Technology

Table 17.1 shows the number of BOC switches and tracks the deployment of certain key switching and signaling technologies, described below, in BOC central offices. (Information about broadband deployment is contained in Chapter 2, *Advanced Telecommunications*.) Telephone companies replaced most of their older electromechanical switches with stored program control switches (SPCSs) beginning in the early 1980s. Stored program control makes it possible to change the operational and service features of a switch by changing the program stored in switch memory and executed by switch processors. SPCSs can use either analog or digital switching technology. As shown in Table 17.1 virtually all switches in BOC networks now use digital stored program control technology, and more than 98 percent of BOC access lines terminate on digital switches.

In the late 1980s, telephone companies began to convert switching offices from in-band signaling to Signaling System 7 (SS7). SS7 permits calls to be set up more efficiently, and also allows certain new services to be deployed. It may be implemented on both analog and digital stored program control switches. Data in Table 17.1 shows that SS7 has now been deployed almost everywhere in BOC networks.

Telephone companies began introducing integrated services digital network (ISDN) capabilities on their digital switches shortly after introducing Signaling System 7. One of the attractions of ISDN is that ordinary local telephone lines (copper loops) can be used to transport data between computers at speeds higher than possible using a modem. In recent years, however, ISDN has taken a back seat to central office broadband technologies, such as Digital Subscriber Line (DSL) and Fiber to the Home (FTTH), when used for this purpose.

Table 17.2 provides some additional categorization of switches. It shows line

---

<sup>1</sup> In 2008, the Commission granted significant forbearance from carriers' obligations to file ARMIS reports. (See 23 FCC Rcd 13647) As such, 2007 was the last year the Commission received data contained in Tables 17.1 and 17.3.

counts of switches from 1996 to 2007 for the following categories: fewer than 1,000 lines; 1,000 - 4,999 lines; 5,000 - 9,999 lines; 10,000 - 19,999 lines; and 20,000 lines or more. The table also breaks out switches based on their being in a Metropolitan Statistical Area (MSA) or not (non-MSA). Note that while Table 17.1 provides switch counts for BOCs only, Table 17.2 provides this information for all price-cap carriers.

## **2. Transmission Technology**

Each telephone company has a network of transmission paths interconnecting switching offices and also connecting customers to their serving local central offices. Today, wireline transmission is typically provided on fiber or copper cable, with other technologies being used only infrequently. As indicated in Table 17.3, from 1991 to 2007, the proportion of fiber cable sheath kilometers<sup>2</sup> in Bell Operating Company networks increased from 5% to over 15% of total cable sheath kilometers.

The number of working channels provides a rough approximation of the number of transmission paths that are in service between customers and the telephone company offices serving those customers. This includes both switched access lines and the local portion of special access and private lines. Table 17.3 shows that the number of working channels provided partly or totally on fiber in BOC networks increased from about 4% of total working channels in 1991 to over 20% in 2007.

## **3. Equal Access**

Equal access refers to a class of service whereby all long distance service providers receive equivalent connections to the local exchange carrier's network. Where a local exchange carrier serves customers using equal-access switches, those customers can utilize their preferred long distance provider by dialing "1" plus the ten-digit telephone number they want to reach.

The conversion of lines by local exchange carriers to equal access started in 1984; by the end of 1996, over 99% of the nation's lines were served by equal access switches. A table tracing this process through time can be found in the equal-access section of the *Trends* report released in July 1998.

Despite the fact that more than 99% of the nation's customers receive equal access, there still are some central offices where equal access is not yet available. Table 17.4 shows the number of central office wire centers in each state that had been converted to equal access as of August 1, 2009. The table is derived from NECA's Tariff 4 database, which is updated by local exchange carriers. In some cases, there is a lag between an office converting to equal access and that change being reflected in the database. Thus, in some cases, the data continue to show some offices not yet converted

---

<sup>2</sup> Cable sheath kilometers is a measure of the length of cable used to provide telecommunications services. A sheath contains individual copper or fiber pairs used to transmit voice or data. Fiber cable sheaths typically contain 40 to 50 fiber strands while copper cable sheaths contain as many as several hundred copper pairs.

to equal access even in states where equal access is reported to be available to all customers.

#### **4. Rural Network Capabilities**

The National Exchange Carrier Association periodically conducts a survey of over 1,000 small, mostly rural telephone companies.<sup>3</sup> The most recent survey focuses on the small companies' efforts to bring advanced services to their customers. Table 17.5 shows selected network capabilities by state of the 1,101 companies that responded to the 2009 survey and a summary of the results of the 2008 survey. In addition to the number of switches and access lines, the table shows the percentage of companies providing equal access, SS7 and DSL; percentage providing Ethernet, ATM and SONET-based services to customers; percentage having those technologies in their networks; the number of ADSL access lines; and the percentage that provide other broadband services.

#### **5. Telecommunications Patents**

One measure of developing technology is the number of U.S. patents. The U.S. Patent and Trademark Office maintains a file of over six million distinct U.S. patents granted. These patents are categorized by technology. Chart 17.1 shows the number of patents granted for telecommunications from 1992 to 2007. The information presented profiles U.S. patent activity in the general field of telecommunications. It includes all U.S. patent documents, except reissued patents, granted between January 1992 and December 31, 2007 in the following classes:

Class 370, *Multiplex Communications*

Class 375, *Pulse or Digital Communications*

Class 379, *Telephonic Communications*

Class 455, *Telecommunications*

#### **6. Capital Expenditures**

The FCC does not systematically collect information on capital expenditures from most carriers. Table 17.6 provides annual estimates of expenditures for structures and equipment for telecommunications carriers, taken from a U.S. Census Bureau survey.<sup>4</sup> Chart 17.2 combines this expenditure data with FCC collected revenue data. It shows that for each dollar of revenue collected from end users in 2007, wireless carriers invested 19 cents in structures and equipment whereas wireline, resellers, satellite & other carriers invested 28 cents. Overall, capital expenditures were 25 cents for each dollar of end-user revenues.

---

<sup>3</sup> National Exchange Carrier Association, *Trends 2009, A report on rural telecom technology*, p.18

<sup>4</sup> U.S. Census Bureau, *Annual Capital Expenditures*, (Issued January 22, 2009) Table 4a; <http://www.census.gov/csd/ace/xls/2007/Full%20Report.htm> (last visited January 12, 2010)

**Table 17.1**  
**Central Office Switches and Access Lines by Technology**  
**(Bell Operating Companies)**

<b>Year End</b>	<b>Total Switches</b>	<b>Signaling System 7 Switches</b>		<b>ISDN Switches</b>		<b>Digital Stored Program Controlled Switches</b>	
1990	9,872	2,428	24.59 %	600	6.08 %	5,816	58.91 %
1991	9,951	3,670	36.88	920	9.25	6,636	66.69
1992	10,069	5,392	53.55	1,219	12.11	7,530	74.78
1993	10,089	6,688	66.29	1,874	18.57	8,239	81.66
1994	10,023	8,334	83.15	2,400	23.94	8,795	87.75
1995	10,051	8,977	89.31	2,868	28.53	9,015	89.69
1996	9,966	9,286	93.18	3,329	33.40	9,247	92.79
1997	9,965	9,688	97.22	3,902	39.16	9,417	94.50
1998	9,788	9,643	98.52	4,146	42.36	9,357	95.60
1999 <sup>1</sup>	9,968	9,844	98.76	4,424	44.38	9,648	96.79
2000 <sup>2</sup>	15,092	14,822	98.31	5,414	35.87	14,889	98.65
2001	15,109	14,954	99.07	5,465	36.17	14,970	99.08
2002	14,353 <sup>3</sup>	14,258	99.35	5,664	39.46	14,245 <sup>3</sup>	99.25
2003	14,376	14,342	99.59	5,651	39.46	14,292	99.42
2004	14,399	14,366	99.77	5,787	40.19	14,326	99.49
2005	12,321	12,292	99.76	5,730	46.21	12,256	99.47
2006	12,315	12,286	99.76	5,914	48.02	12,251	99.48
2007 <sup>5</sup>	12,347	12,323	99.81	5,930	48.03	12,283	99.48
<b>Access Lines Served by Type of Office</b> <b>(Thousands)</b>							
<b>Year End</b>	<b>All Switches</b>	<b>Signaling System 7 Switches</b>		<b>ISDN Switches</b>		<b>Digital Stored Program Controlled Switches</b>	
1990	105,641	40,026	37.89 %	13,970	13.22 %	45,452	43.02 %
1991	107,388	57,321	53.38	20,567	19.15	52,061	48.48
1992	109,997	76,480	69.53	28,375	25.80	60,324	54.84
1993	113,368	92,493	81.59	39,875	35.17	71,192	62.80
1994	117,345	109,465	93.28	56,546	48.19	84,040	71.62
1995	122,266	116,568	95.34	71,274	58.29	93,172	76.20
1996	125,844	122,343	97.22	85,434	67.89	101,283	80.48
1997	131,722	130,778	99.28	95,956	72.85	110,503	83.89
1998	136,426	136,246	99.87	106,834	78.31	119,738	87.77
1999 <sup>1</sup>	141,763	141,685	99.94	113,999	80.42	129,838	91.59
2000 <sup>2</sup>	160,557	160,303	99.84	132,844	82.74	153,240	95.44
2001	155,543	155,363	99.88	129,075	82.98	150,732	96.91
2002	148,292 <sup>3</sup>	<sup>4</sup>	<sup>4</sup>	124,451	83.92	145,009 <sup>3</sup>	97.79
2003	142,698	<sup>4</sup>	<sup>4</sup>	119,422	83.68	140,262	98.30
2004	136,057	<sup>4</sup>	<sup>4</sup>	115,561	84.94	134,076	98.54
2005	127,026	<sup>4</sup>	<sup>4</sup>	107,535	84.36	125,460	98.77
2006	118,316	<sup>4</sup>	<sup>4</sup>	100,084	84.56	116,817	98.73
2007 <sup>5</sup>	109,448	<sup>4</sup>	<sup>4</sup>	92,284	84.32	108,058	98.73

<sup>1</sup> Southern New England Telephone Company merged with SBC Communications October 26, 1998. Their data are included in this table starting with 1999.

<sup>2</sup> Large increase in 2000 is due to the merger of Bell Atlantic and GTE.

<sup>3</sup> The decrease in the number of switches and their associated lines from 2001 to 2002 is partially due to the sale of a number of study areas by Verizon.

<sup>4</sup> Starting with 2002 data, the Commission eliminated the requirement that the Bell operating companies file electromechanical switch data and data for lines served by SS7 switches. See *2000 Biennial Regulatory Review – Comprehensive Review of the Accounting Requirements and ARMIS Reporting Requirements for Incumbent Local Exchange Carriers: Phase 2*, et al., CC Docket Nos. 00-199, 99-301, 97-212, 80-286, Report and Order in CC Docket Nos. 00-199, 97-212, and 80-286, Further Notice of Proposed Rulemaking in CC Docket Nos. 00-199, 99-301, and 80-286, 16 FCC Rcd 19911, 19770-72, paras. 161-165

<sup>5</sup> Starting in 2008, the Commission eliminated the requirement for Bell Operating Companies to file ARMIS 43-07 data. See 23 FCC Rcd 13647.

Source: ARMIS 43-07

**Table 17.2<sup>1</sup>**  
**Switches by Metropolitan Statistical Area (MSA) and Non-MSA**  
**And Switches by Line Counts**

<b>Year</b>	<b>Total Switches MSA</b>	<b>Total Switches Non-MSA</b>	<b>Total Switches MSA and Non-MSA</b>	<b>Switches with Under 1,000 Lines</b>	<b>Switches with 1,000 - 4,999 Lines</b>	<b>Switches with 5,000 - 9,999 Lines</b>	<b>Switches with 10,000 - 19,999 Lines</b>	<b>Switches with 20,000 or More Lines</b>
1996	8,711	7,426	16,137	4,594	5,758	1,770	1,431	2,584
1997	9,138	7,199	16,337	4,476	5,843	1,786	1,518	2,714
1998	9,011	7,492	16,503	4,374	6,027	1,821	1,527	2,754
1999	9,165	7,452	16,617	4,319	5,898	1,915	1,613	2,873
2000	9,058	6,340	15,398	3,472	5,538	1,869	1,632	2,888
2001	8,996	6,377	15,373	3,402	5,481	1,873	1,678	2,938
2002	9,098	6,336	15,434	3,638	5,627	1,852	1,627	2,772
2003	9,170	6,541	15,711	3,747	5,725	1,887	1,685	2,667
2004	9,289	6,737	16,026	4,160	5,833	1,868	1,681	2,485
2005 <sup>2</sup>	9,064	5,602	14,666	3,380	5,310	1,886	1,719	2,371
2006	9,079	5,578	14,657	3,502	5,343	1,914	1,748	2,150
2007	9,004	5,735	14,739	3,669	5,441	1,900	1,782	1,947
2008	9,004	5,307	14,311	3,857	5,178	1,860	1,775	1,641
2009	8,993	5,306	14,299	4,062	5,205	1,838	1,781	1,413

<sup>1</sup> The number of switches in Table 17.2 differs from Tables 17.1. Table 17.1 is derived from the ARMIS 43-07, which was filed by the regional Bell operating companies through 2007. Table 17.2 is derived from the ARMIS 43-05, which is filed by incumbent local exchange carriers subject to price-cap regulation.

<sup>2</sup> The decline in switches between 2004 and 2005 is primarily due to Verizon GTE reporting substantially fewer switches in 2005 than in 2004. Verizon attributes its 2005 reduction in local switches to Verizon GTE's change in data sources from financial to operations databases, which the company expects will provide more timely information.

**Table 17.3**  
**Local Transmission Technology**  
**(Bell Operating Companies)**  
**Cable Sheath Kilometers**

<b>Year End</b>	<b>Total</b>	<b>Copper</b>		<b>Fiber</b>		<b>Other</b>	
1991	4,163,640	3,955,622	95.0 %	196,791	4.7 %	11,228	0.3 %
1992	4,214,804	3,965,406	94.1	238,406	5.7	10,994	0.3
1993	4,264,569	3,976,100	93.2	280,017	6.6	8,450	0.2
1994	4,256,253	3,934,243	92.4	314,660	7.4	7,350	0.2
1995	4,319,068	3,960,343	91.7	351,907	8.1	6,819	0.2
1996	4,339,067	3,947,238	91.0	386,011	8.9	5,819	0.1
1997	4,396,205	3,974,204	90.4	416,105	9.5	5,896	0.1
1998	4,473,351	4,009,772	89.6	449,554	10.0	14,026	0.3
1999 <sup>1</sup>	4,608,808	4,103,657	89.0	491,478	10.7	13,672	0.3
2000 <sup>2</sup>	5,761,869	5,132,364	89.1	613,646	10.7	15,860	0.3
2001	5,848,516	5,166,537	88.3	665,805	11.4	16,174	0.3
2002	5,791,105	5,086,669	87.8	692,031	11.9	12,406	0.2
2003	5,851,790	5,118,314	87.5	720,877	12.3	12,600	0.2
2004	5,940,199	5,166,481	87.0	763,132	12.8	12,587	0.2
2005	5,987,524	5,166,382	86.3	810,556	13.5	10,585	0.2
2006	6,079,810	5,184,980	85.3	894,319	14.7	10,511	0.2
2007	6,201,565	5,218,430	84.1	972,713	15.7	10,422	0.2

**Working Telecommunications Channels<sup>1</sup>**  
**(Thousands)**

<b>Year End</b>	<b>Total</b>	<b>Copper</b>		<b>Fiber</b>		<b>Other</b>	
1991	118,654	114,047	96.1 %	4,605	3.9 %	2.3	0.0 %
1992	120,848	114,609	94.8	6,238	5.2	1.0	0.0
1993	124,191	115,496	93.0	8,694	7.0	1.4	0.0
1994	130,192	118,437	91.0	11,755	9.0	0.3	0.0
1995	136,231	122,975	90.3	13,255	9.7	0.3	0.0
1996	142,824	125,595	87.9	17,228	12.1	1.0	0.0
1997	149,429	128,436	86.0	20,992	14.0	0.3	0.0
1998	172,916	134,629	77.9	38,286	22.1	0.3	0.0
1999 <sup>2</sup>	186,387	138,691	74.4	47,696	25.6	0.0	0.0
2000 <sup>3</sup>	218,928	157,840	72.1	61,086	27.9	1.9	0.0
2001	228,705	152,441	66.7	76,263	33.3	1.5	0.0
2002 <sup>4</sup>	169,157	137,228	81.1	31,927	18.9	1.4	0.0
2003	155,978	127,261	81.6	28,716	18.4	0.5	0.0
2004	148,278	117,673	79.4	30,605	20.6	0.1	0.0
2005	137,254	100,017	72.9	27,237	19.8	0.1	0.0
2006	125,767	100,254	79.7	25,513	20.3	0.1	0.0
2007 <sup>5</sup>	116,333	92,432	79.5	23,902	20.5	0.1	0.0

Source: Industry Analysis and Technology Division, Wireline Competition Division, Statistics of Communications Common Carriers, with updates and revisions contained in the ARMIS database (ARMIS 43-07 Report) for the most recent five years through 2007. Totals may be understated because certain data pertaining to the carriers included in this table are not available.

<sup>1</sup> Working Channels are reported in 4 kHz bandwidth (single-voice channel) equivalents.

<sup>2</sup> Southern New England Telephone Company merged with SBC Communications October 26, 1998. Their data are included in this table starting with 1999.

<sup>3</sup> Large increase in 2000 is due to the merger of Bell Atlantic and GTE.

<sup>4</sup> The large decrease from 2001 to 2002 is due in part to a number of Verizon companies refiled in order to remove interexchange carrier, point-of-presence, and co-location circuit counts to comply with ARMIS definitions.

<sup>5</sup> In 2008, the Commission granted forbearance relief from filing this data.

**Table 17.4**  
**Central Offices Converted to Equal Access 1/**  
**(As of February 1, 2010)**

	Bell Company Central Offices			Other ILEC Central Offices			CLEC Central Offices			All Central Offices	
	Equal Access	Non- Equal Access	% Equal Access	Equal Access	Non- Equal Access	% Equal Access	Equal Access	Non- Equal Access	% Equal Access	Total Offices	% Equal Access
Alabama	146	0	100.0 %	210	0	100.0 %	45	0	100.0 %	401	100.0 %
Alaska	0	0	NA	114	141	44.7	0	0	NA	255	44.7
American Samoa	0	0	NA	4	0	100.0	0	0	NA	4	100.0
Arizona	145	0	100.0	100	2	98.0	37	0	100.0	284	99.3
Arkansas	138	0	100.0	276	2	99.3	33	2	94.3	451	99.1
California	908	2	99.8	84	1	98.8	178	2	98.9	1,175	99.6
Colorado	165	1	99.4	99	1	99.0	34	0	100.0	300	99.3
Connecticut	128	0	100.0	0	0	NA	17	0	100.0	145	100.0
Delaware	33	0	100.0	0	0	NA	5	0	100.0	38	100.0
District of Columbia	18	0	100.0	0	0	NA	23	0	100.0	41	100.0
Florida	292	0	100.0	177	0	100.0	219	0	100.0	688	100.0
Georgia	182	0	100.0	233	1	99.6	84	0	100.0	500	99.8
Guam	0	0	NA	3	0	100.0	0	0	NA	3	100.0
Hawaii	0	0	NA	93	0	100.0	8	0	100.0	101	100.0
Idaho	97	0	100.0	77	0	100.0	13	0	100.0	187	100.0
Illinois	696	4	99.4	325	7	97.9	73	1	98.6	1,106	98.9
Indiana	384	3	99.2	179	0	100.0	55	1	98.2	622	99.4
Iowa	135	0	100.0	650	0	100.0	58	0	100.0	843	100.0
Kansas	171	2	98.8	215	4	98.2	32	1	97.0	425	98.4
Kentucky	178	0	100.0	405	0	100.0	31	0	100.0	614	100.0
Louisiana	223	0	100.0	89	0	100.0	40	0	100.0	352	100.0
Maine	143	1	99.3	104	8	92.9	3	0	100.0	259	96.5
Maryland	214	0	100.0	1	0	100.0	24	0	100.0	239	100.0
Massachusetts	274	1	99.6	3	0	100.0	33	0	100.0	311	99.7
Michigan	542	7	98.7	165	0	100.0	73	0	100.0	787	99.1
Minnesota	155	0	100.0	564	0	100.0	114	0	100.0	833	100.0
Mississippi	205	0	100.0	70	0	100.0	22	0	100.0	297	100.0
Missouri	215	0	100.0	445	20	95.7	65	0	100.0	745	97.3
Montana	75	0	100.0	195	1	99.5	22	0	100.0	293	99.7
Nebraska	69	0	100.0	387	0	100.0	23	0	100.0	479	100.0
Nevada	55	0	100.0	61	3	95.3	15	0	100.0	134	97.8
New Hampshire	125	1	99.2	32	0	100.0	7	0	100.0	165	99.4
New Jersey	209	0	100.0	28	0	100.0	49	0	100.0	286	100.0
New Mexico	65	0	100.0	105	1	99.1	12	0	100.0	183	99.5
New York	526	2	99.6	306	2	99.4	107	0	100.0	943	99.6
North Carolina	184	0	100.0	565	1	99.8	108	0	100.0	858	99.9
North Dakota	27	0	100.0	274	19	93.5	16	0	100.0	336	94.3
Ohio	489	19	96.3	341	4	98.8	104	1	99.0	958	97.5
Oklahoma	207	1	99.5	303	1	99.7	28	0	100.0	540	99.6
Oregon	135	0	100.0	153	0	100.0	31	0	100.0	319	100.0
Pennsylvania	506	0	100.0	429	29	93.7	82	0	100.0	1,046	97.2
Puerto Rico	0	0	NA	86	0	100.0	3	0	100.0	89	100.0
Rhode Island	30	0	100.0	0	0	NA	7	0	100.0	37	100.0
South Carolina	158	0	100.0	263	0	100.0	53	0	100.0	474	100.0
South Dakota	42	0	100.0	201	6	97.1	10	0	100.0	259	97.7
Tennessee	196	0	100.0	602	0	100.0	57	1	98.3	856	99.9
Texas	797	2	99.7	695	1	99.9	225	5	97.8	1,725	99.5
Utah	63	0	100.0	93	4	95.9	12	0	100.0	172	97.7
Vermont	90	2	97.8	38	0	100.0	4	0	100.0	134	98.5
Virgin Islands	0	0	NA	5	0	100.0	0	0	NA	5	100.0
Virginia	328	1	99.7	270	7	97.5	67	0	100.0	673	98.8
Washington	219	0	100.0	141	2	98.6	41	0	100.0	403	99.5
West Virginia	145	0	100.0	86	6	93.5	7	0	100.0	244	97.5
Wisconsin	225	4	98.3	375	0	100.0	58	0	100.0	662	99.4
Wyoming	26	0	100.0	36	13	73.5	3	0	100.0	78	83.3
Total United States	10,778	53	99.5 %	10,755	287	97.4 %	2,470	14	99.4 %	24,357	98.5 %

NA - Not applicable.

1/ Some companies do not report information on their remote switches in Tariff No. 4. As a result, central office counts may be lower than reported in other sources.

Source: NECA FCC Tariff No. 4 database.

**Table 17.5**  
**Broadband Capabilities of NECA's 2009 Rural Incumbent LEC Survey Results**

State or Jurisdiction	Companies	Switches	Access Lines	Provide Equal Access	Provide SS7	Provide DSL Service	DSL Access Lines	Provide ATM Service	Deploy ATM in Network	Provide Ethernet Service <sup>1</sup>	Deploy Ethernet in Network	Provide SONET Service <sup>1</sup>	Deploy SONET in Network	Provide Other Broadband <sup>2</sup>
Alabama	21	80	102,381	100 %	100 %	100 %	26,319	19 %	29 %	29 %	62 %	0 %	62 %	100 %
Alaska	19	89	111,310	79	84	74	36,836	21	37	37	68	21	32	68
American Samoa	1	4	10,297	100	100	100	*	*	*	*	*	*	*	*
Arizona	12	44	37,291	100	100	100	8,621	25	75	33	75	17	92	75
Arkansas	19	115	73,661	100	100	95	25,568	11	58	21	63	16	68	63
California	13	19	67,026	100	100	100	27,011	31	85	85	85	8	85	62
Colorado	24	37	34,453	98	96	88	9,545	13	58	17	63	8	42	75
Florida	6	12	65,667	100	100	100	18,351	17	83	67	83	17	100	100
Georgia	26	60	179,277	97	100	100	55,199	8	65	27	65	0	81	100
Guam	1	3	52,884	100	100	100	*	*	*	*	*	*	*	*
Hawaii	1	9	1,889	100	100	100	*	*	*	*	*	*	*	*
Idaho	13	50	32,103	100	100	100	12,729	31	92	38	100	15	92	85
Illinois	38	119	56,681	97	92	97	18,941	13	39	6	55	0	42	63
Indiana	33	74	101,206	100	100	100	39,733	27	70	33	76	0	70	94
Iowa	144	314	187,534	100	100	97	69,170	1	37	9	72	1	56	64
Kansas	34	114	113,342	100	100	97	48,547	18	53	38	76	12	79	97
Kentucky	12	279	119,366	100	100	100	37,702	42	75	50	83	0	92	100
Louisiana	9	62	35,589	100	100	89	12,475	0	56	56	44	0	67	89
Maine	19	116	114,329	100	100	100	33,924	26	84	42	63	26	89	47
Maryland	1	1	6,350	100	100	100	*	*	*	*	*	*	*	*
Massachusetts	2	2	3,473	100	100	100	774	0	50	50	50	0	0	50
Michigan	31	99	77,893	100	100	97	24,785	16	58	39	81	3	58	77
Minnesota	80	298	287,831	100	98	94	83,341	18	60	14	74	9	61	61
Mississippi	16	48	47,962	100	100	100	14,302	44	63	19	81	0	56	81
Missouri	36	155	106,615	100	100	100	38,956	8	58	31	67	0	69	75
Montana	14	187	90,171	100	100	100	31,883	21	79	7	86	29	93	86
Nebraska	35	140	62,963	100	100	97	24,997	0	57	9	63	9	69	86
Nevada	8	29	30,358	100	100	100	12,806	38	88	13	100	25	88	50
New Hampshire	9	32	48,369	100	100	100	13,759	44	78	67	67	0	78	89
New Jersey	1	2	6,738	100	100	100	*	*	*	*	*	*	*	*
New Mexico	12	74	36,469	100	100	100	9,976	8	58	25	67	8	75	92
New York	31	85	137,731	100	97	100	41,439	19	71	29	84	0	81	94
North Carolina	14	140	181,470	100	100	100	38,790	57	100	64	100	21	100	93
North Dakota	20	260	135,253	100	100	100	52,685	40	90	50	85	25	95	100
Ohio	33	25	62,668	100	88	94	15,066	9	64	18	73	0	64	64
Oklahoma	34	264	158,232	100	100	94	63,432	24	59	24	74	6	79	82
Oregon	27	58	69,290	100	100	93	27,905	11	70	33	81	0	63	85
Pennsylvania	23	729	471,377	100	100	96	91,863	17	70	17	83	17	83	78
South Carolina	12	186	93,847	100	100	100	31,466	50	92	33	75	17	75	75
South Dakota	28	180	115,836	100	93	93	40,745	11	64	11	71	18	93	79
Tennessee	16	531	212,478	100	100	100	72,138	50	81	50	94	0	75	88
Texas	43	352	218,809	100	100	100	69,857	21	65	21	65	12	77	86
Utah	11	70	66,550	100	100	100	27,074	9	64	55	91	9	55	91
Vermont	9	39	59,697	100	100	100	25,152	44	89	44	44	33	67	100
Virginia	15	181	75,125	100	100	93	26,504	20	67	33	80	7	60	93
Washington	20	54	72,621	100	100	90	26,619	25	55	35	70	5	40	70
West Virginia	6	6	16,048	100	100	100	5,203	0	0	17	67	33	67	83
Wisconsin	64	204	290,103	100	100	100	64,021	23	73	39	89	3	78	88
Wyoming	5	23	22,410	100	100	100	8,904	40	60	20	80	40	80	80
Totals	1,101	6,054	4,761,023	99 %	99 %	97 %	1,477,876	18 %	61 %	27 %	74 %	7 %	69 %	78 %
2008 Totals	1,119	6,324	5,519,917	99 %	98 %	97 %	1,317,208	27 %	75 %	17 %	60 %	6 %	71 %	74 %

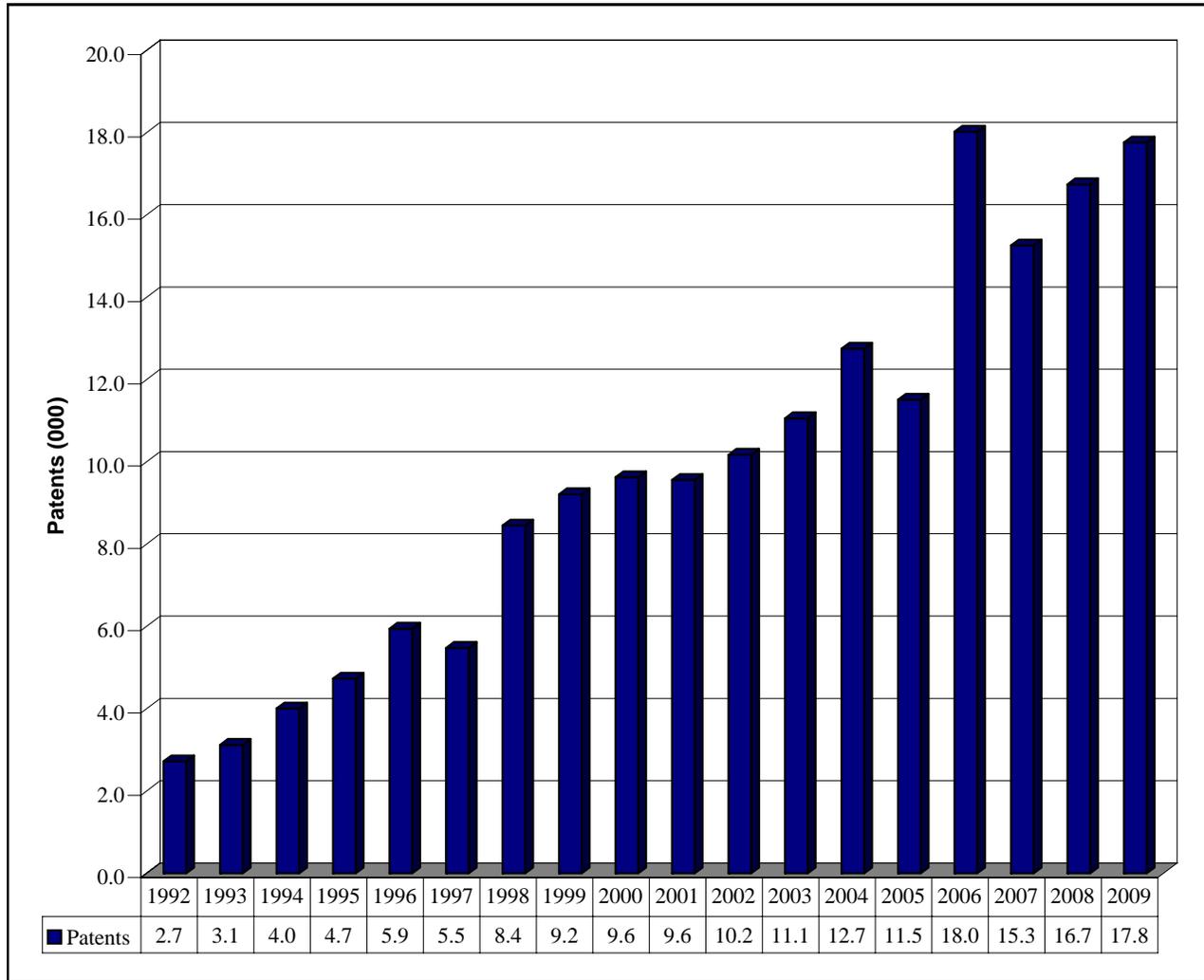
<sup>1</sup> TS pooling companies offering ATM, Ethernet and SONET services to their customers and are listed in NECA's Tariff F.C.C. Wire Center Tariff # 4.

<sup>2</sup> Includes fiber such as FTTP, FTTH, FTTC or Hybrid-Fiber-Coax; wireless broadband using fixed, licensed unlicensed, WiFi or WiMAX; cable or satellite.

\* Individual data withheld to maintain company confidentiality. All data included in totals.

Source: National Exchange Carrier Association "Trends 2009, A report on rural telecom technology".

**Chart 17.1**  
**Telecommunications Patents**  
(In Thousands)



Note: 1996 total reflects one-time change in law affecting patents.

Source: U.S. Patent and Trademark Office, *Patent Counts by Class by Year, January 1977 - December 2009*, 'Telecommunications Classes 370, 375, 379 and 455 (April 2010), available at <http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cbcby.htm#PartA1-2>.

**Table 17.6**  
**Capital Expenditures for Structures and Equipment**<sup>1</sup>  
**(Expenditure Amounts Shown in Millions)**

Industry <sup>2</sup>	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Wireline Telecommunications Carriers											
Expenditures for Structures											
New	\$10,652	<sup>3</sup>	\$18,021	\$14,482	\$7,820	\$9,825	<sup>3</sup>	\$7,921	\$10,142	\$9,318	<sup>3</sup>
Used	<u>12</u>	<sup>3</sup>	<u>205</u>	<u>18</u>	<u>1</u>	<u>52</u>	<sup>3</sup>	<u>11</u>	<u>18</u>	<u>7</u>	<sup>3</sup>
Total	10,664	17,309	18,226	14,500	7,821	9,877	8,118	7,933	10,160	9,325	8,956
Expenditures for Equipment											
New	39,828	<sup>3</sup>	55,902	57,436	26,986	16,918	<sup>3</sup>	19,172	21,924	25,737	<sup>3</sup>
Used	<u>78</u>	<sup>3</sup>	<u>77</u>	<u>38</u>	<u>12</u>	<u>41</u>	<sup>3</sup>	<u>31</u>	<u>57</u>	<u>144</u>	<sup>3</sup>
Total	<u>39,905</u>	<u>42,442</u>	<u>55,980</u>	<u>57,474</u>	<u>26,998</u>	<u>16,959</u>	<u>15,922</u>	<u>19,203</u>	<u>21,981</u>	<u>25,882</u>	<u>24,369</u>
Total Expenditures for Structures and Equipment	\$50,570	\$59,752	\$74,206	\$71,974	\$34,819	\$26,836	\$24,040	\$27,136	\$32,141	\$35,207	\$33,325
Wireless Telecommunications Carriers (Except Satellite)											
Expenditures for Structures											
New	\$2,387	\$5,026	\$7,674	\$11,313	\$8,245	\$11,512	\$11,685	<sup>3</sup>	12,604	<sup>3</sup>	8,070
Used	*	<u>3</u>	<u>58</u>	<u>8</u>	<u>7</u>	<u>2</u>	<u>31</u>	<sup>3</sup>	<u>45</u>	<sup>3</sup>	25
Total	2,387	5,030	7,732	11,321	8,252	11,514	11,716	16,456	12,648	7,253	8,094
Expenditures for Equipment											
New	5,841	9,350	17,589	12,695	12,210	9,459	12,278	<sup>3</sup>	15,290	<sup>3</sup>	17,457
Used	<u>6</u>	<u>43</u>	<u>161</u>	<u>13</u>	<u>29</u>	<u>16</u>	<u>4</u>	<sup>3</sup>	<u>31</u>	<sup>3</sup>	4
Total	<u>5,841</u>	<u>9,393</u>	<u>17,750</u>	<u>12,708</u>	<u>12,238</u>	<u>9,475</u>	<u>12,282</u>	<u>10,882</u>	<u>15,321</u>	<u>14,971</u>	<u>17,462</u>
Total Expenditures for Structures and Equipment	\$8,228	\$14,422	\$25,482	\$24,028	\$20,490	\$20,989	\$23,998	\$27,337	\$27,969	\$22,225	\$25,556
Resellers, Satellite and Other Telecommunications Carriers											
Expenditures for Structures											
New	\$2,089	\$1,410	\$1,951	\$2,233	\$1,556	\$3,499	\$397	\$449	\$259	\$279	\$598
Used	*	<u>4</u>	<u>3</u>	<u>5</u>	<u>3</u>	<u>133</u>	<u>6</u>	<u>1</u>	-	<u>1</u>	<u>18</u>
Total	2,089	1,414	1,954	2,238	1,560	3,632	403	450	259	280	616
Expenditures for Equipment											
New	4,188	8,795	11,495	7,288	4,119	809	3,095	3,180	2,726	3,038	2,766
Used	<u>4</u>	<u>49</u>	<u>164</u>	<u>78</u>	<u>12</u>	<u>96</u>	<u>22</u>	<u>27</u>	<u>18</u>	<u>59</u>	<u>14</u>
Total	<u>4,192</u>	<u>8,845</u>	<u>11,659</u>	<u>7,367</u>	<u>4,131</u>	<u>905</u>	<u>3,117</u>	<u>3,207</u>	<u>2,744</u>	<u>3,097</u>	<u>2,780</u>
Total Expenditures for Structures and Equipment	\$6,281	\$10,259	\$13,613	\$9,605	\$5,691	\$4,537	\$3,520	\$3,657	\$3,003	\$3,377	\$3,396
Total Telephone and Other Communications Services											
Expenditures for Structures											
New	15,128	<sup>3</sup>	\$27,646	\$28,028	\$17,621	\$24,836	<sup>3</sup>	\$8,373	\$23,005	\$9,600	\$8,671
Used	<u>12</u>	<sup>3</sup>	<u>266</u>	<u>31</u>	<u>11</u>	<u>187</u>	<sup>3</sup>	<u>15</u>	<u>63</u>	<u>11</u>	<u>46</u>
Total	15,140	23,753	27,912	28,059	17,633	25,023	18,237	8,382	23,068	9,605	9,605
Expenditures for Equipment											
New	49,857	<sup>3</sup>	84,986	77,419	43,315	27,186	<sup>3</sup>	22,355	39,940	28,778	20,226
Used	<u>88</u>	<sup>3</sup>	<u>402</u>	<u>129</u>	<u>53</u>	<u>153</u>	<sup>3</sup>	<u>61</u>	<u>106</u>	<u>206</u>	<u>21</u>
Total	<u>49,938</u>	<u>60,680</u>	<u>85,389</u>	<u>77,549</u>	<u>43,367</u>	<u>27,339</u>	<u>31,321</u>	<u>22,410</u>	<u>40,046</u>	<u>28,978</u>	<u>28,978</u>
Total Expenditures for Structures and Equipment	\$65,079	\$84,433	\$113,301	\$105,607	\$61,000	\$52,362	\$51,558	\$58,130	\$63,113	\$60,809	\$62,277

Note: Detail may not add to totals shown due to rounding.

\* Represents amounts greater than \$0 but less than \$500,000.

<sup>1</sup> Capital expenditures include capitalized computer software, capitalized interest during construction and expenditures for land development and improvement. They exclude equipment acquired under operating leases, good will, and expenditures for subsidiaries and branches located outside the United States.

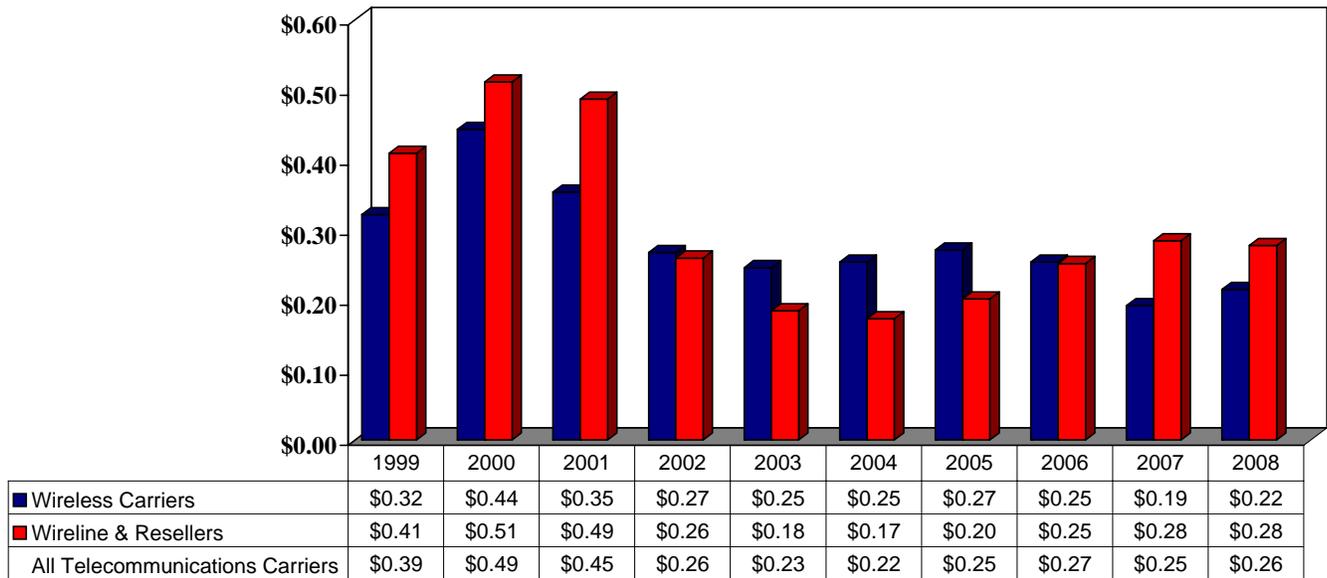
<sup>2</sup> Starting in 1998 data are based on the North American Industry Classification System (NAICS). NAICS Codes are 51331 for Wireline, 51332 for Wireless and 51333, 51334 and 51339 for others. For 2004 - 2008 they are 5171, 5172, and 5173, 5174, and 5179, respectively.

<sup>3</sup> Data withheld by the Census Bureau to maintain firm confidentiality.

Source: U.S. Census Bureau, *Annual Capital Expenditures*, (Issued June 23, 2010) Table 4a

See: <http://www.census.gov/econ/aces/xls/2008/Full%20Report.htm> (last visited September 20, 2010).

**Chart 17.2**  
**Capital Expenditures for Structures and Equipment by Carriers**  
**Per Dollar of End-User Telecommunications Revenues <sup>1</sup>**



<sup>1</sup> Capital expenditures per dollar of end-user telecommunications revenues are derived by dividing expenditures figures in Table 17.6 by end-user revenues data in Table 6 of the Revenue Report.

Source: U.S. Census Bureau, *Annual Capital Expenditures* ; Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues (September 2010)*.

## 18 Telephone Numbers

When the North American Numbering Plan was established in 1947, only 78 area codes were assigned to carriers in the United States. Only 36 new codes were added through 1989. But the rate of activation increased dramatically. In the 1990s, 109 new area codes were activated in the United States. Because the remaining supply of unassigned area codes is diminishing, and because a premature exhaust of area codes imposes significant costs on consumers, the Commission has taken a number of steps to ensure that the limited numbering resources are used efficiently. Among other things, the Commission requires carriers to submit data on numbering resource utilization and forecasts twice a year. The information is submitted using FCC Form 502, which is known as the Numbering Resource Utilization/Forecast (NRUF) form. Carriers controlling numbering resources for the purpose of providing services to their customers are required to file their NRUF forms with the North American Numbering Plan Administrator (NANPA) by February 1 and August 1 of each year.

Table 18.1 shows the percentage of numbers that have been assigned to carriers and that the carriers have then assigned to end users over time. The utilization rate for incumbent local exchange carriers (LECs) is slowly declining and cellular/PCS and competitive LEC (CLEC) utilization rates are generally increasing. The utilization rate for paging continues to drop because the paging market is shrinking.

Table 18.2 shows the total quantity of telephone numbers reported by the carriers and the number of 10,000 blocks (or NXXs) that were reported. It also shows the quantity of telephone numbers that carriers reported for each of the following six categories of telephone numbers: assigned, intermediate, reserved, aging, administrative, and available.<sup>1</sup>

Table 18.3 shows utilization statistics on a state-by-state basis. As might be expected, states that are relatively rural and have low population densities have a lower percentage of numbers that have been assigned to end-user customers than in more urban, populous states. Carriers report only those numbers that have been assigned to them, so the quantity of available numbers does not include any of the NXXs that had not yet been assigned to a carrier.

Table 18.4 lists in-service area codes along with the state and month the code was activated. Table 18.5 shows area code assignment information from 1947 to 2009.

AT&T introduced toll-free service in 1967. The Commission changed procedures for routing toll-free calls on May 1, 1993 to make toll-free numbers "portable." This change enabled customers to switch service providers yet still retain their toll-free numbers. Between 1993 and 2000, the quantity of assigned toll-free numbers grew rapidly: growing from 3.9 million in 1993 to 24.2 million in 2000. New toll-free calling codes were opened to meet the demand. In March 1996, calling code 888 was placed into service. The third

---

<sup>1</sup> For definitions on these categories, see *Numbering Resource Utilization in the United States*, available at <http://www.fcc.gov/wcb/iatd/number.html>.

toll-free calling code (877) went into effect April 4, 1998, and the fourth toll-free calling code (866) went into effect July 29, 2000. The growth of toll-free telephone numbers for the four toll-free codes (800, 888, 877, and 866) is shown in Table 18.6 and Chart 18.1. Tables 18.7 through 18.10 show the growth of each individual toll-free code: 800, 888, 877, and 866, respectively. In the event that another toll-free code is needed, the 855 code would be opened. Database Service Management, Inc./Team DSMI, a subsidiary of Telcordia Technologies, Inc., maintains the Toll-Free Service Management System for the United States and Canada.

Dialing patterns differ from state to state. For instance, in some states, callers making local calls within an area code are required to dial only the 7-digit phone number. In other states, callers making local calls must dial the ten-digit phone number (area code plus the phone number). Finally, in some states, local callers must dial a “1” before dialing the area code plus the phone number. Each state’s public utilities commission (or public service commission) determines the calling pattern for each area code in their state. The dialing patterns for area codes are listed in area code planning letters, which are available on the North American Numbering Plan Administrator’s web site at [www.nanpa.com](http://www.nanpa.com).

For both local and domestic toll calls, there are two basic types of calls: those within an area code and those between area codes. Table 18.11 shows the dialing patterns for all four types of calls. The last column of Table 18.11 indicates whether all toll calls in that state require callers to dial a “1” before the telephone number.

**Table 18.1**  
**Telephone Number Utilization over Time**

		ILEC	Cellular/PCS	CLEC	Paging	Overall
2000	December	52.1%	46.2%	9.8%	26.3%	40.1%
2001	June	52.1%	45.3%	10.9%	24.8%	39.6%
	December	52.5%	47.2%	11.4%	20.2%	39.7%
2002	June	52.2%	47.5%	10.4%	17.6%	39.2%
	December	52.2%	47.8%	10.6%	17.0%	39.2%
2003	June	53.2%	49.0%	10.7%	14.3%	39.9%
	December	52.6%	50.6%	10.6%	13.0%	39.5%
2004	June	54.5%	53.9%	14.8%	10.9%	42.3%
	December	53.5%	54.6%	16.4%	10.3%	42.2%
2005	June	52.8%	56.9%	18.1%	9.9%	43.0%
	December	52.4%	59.1%	19.7%	8.6%	43.4%
2006	June	50.2%	60.4%	20.5%	8.1%	43.3%
	December	49.3%	63.3%	21.5%	8.0%	44.2%
2007	June	50.8%	64.8%	25.4%	7.5%	46.7%
	December	50.7%	65.0%	26.9%	7.1%	47.1%
2008	June	50.3%	65.3%	30.4%	6.6%	48.1%
	December	49.6%	65.6%	31.1%	6.7%	47.9%
2009	June	48.8%	66.1%	34.3%	6.1%	48.5%

**Table 18.2**  
**Telephone Number Utilization by Carrier Type as of June 30, 2009**

Carrier Type	Assigned	Intermediate	Reserved	Aging	Admin	Available <sup>1</sup>	Total	Unique NXXs
	(Thousands of telephone numbers)							
Incumbent LEC	282,648	14,405	4,150	14,382	12,943	251,007	579,534	66,642
Cellular/PCS	280,156	1,671	1,490	16,100	4,314	120,453	424,183	56,008
CLEC	105,711	3,453	3,287	7,073	1,441	186,994	307,959	49,739
Paging	4,689	644	649	587	221	70,609	77,400	5,834
All Reporting Carriers	673,203	20,173	9,576	38,142	18,919	629,063	1,389,076	140,260 <sup>2</sup>
Incumbent LEC	48.8%	2.5%	0.7%	2.5%	2.2%	43.3%	100.0%	
Cellular/PCS	66.1%	0.4%	0.4%	3.8%	1.0%	28.4%	100.0%	
CLEC	34.3%	1.1%	1.1%	2.3%	0.5%	60.7%	100.0%	
Paging	6.1%	0.8%	0.8%	0.8%	0.3%	91.2%	100.0%	
All Reporting Carriers	48.5%	1.5%	0.7%	2.8%	1.4%	45.3%	100.0%	

Source: *Numbering Resource Utilization in the United States*.

<sup>1</sup> Includes only telephone numbers in NXXs assigned to carriers and are therefore available for assignment to customers. Does not include any numbers in NXXs that have not yet been assigned to carriers.

<sup>2</sup> Unduplicated total.

Note: Figures may not add due to rounding. Where an Regional Bell Operating Company (RBOC) has acquired a carrier with Competitive Local Exchange Carrier (CLEC) services in the RBOC's operating region, the numbering resources of the acquired CLEC that are in the RBOC's operating region are counted as incumbent LEC resources. Where the acquired CLEC provides services outside of the acquirer's operating region, the numbering resources are treated as CLEC resources.

**Table 18.3**  
**Telephone Number Utilization by State as of June 30, 2009**

State/jurisdiction	Assigned		Intermediate		Reserved		Aging		Administrative		Available <sup>1</sup>		Total 000s
	000s	%	000s	%	000s	%	000s	%	000s	%	000s	%	
Alabama	9,744	43.5	658	2.9	165	0.7	627	2.8	398	1.8	10,833	48.3	22,425
Alaska	1,544	28.2	39	0.7	120	2.2	96	1.7	36	0.7	3,646	66.5	5,481
American Samoa	26	87.9	0	0.0	1	2.6	0	0.0	1	3.0	2	6.5	30
Arizona	13,419	63.0	89	0.4	163	0.8	743	3.5	238	1.1	6,650	31.2	21,303
Arkansas	5,118	35.4	421	2.9	50	0.3	285	2.0	166	1.1	8,412	58.2	14,453
California	82,747	53.1	1,794	1.2	723	0.5	4,463	2.9	3,071	2.0	63,042	40.5	155,841
Colorado	12,325	58.5	56	0.3	124	0.6	611	2.9	372	1.8	7,581	36.0	21,069
Connecticut	7,926	52.5	284	1.9	91	0.6	352	2.3	200	1.3	6,251	41.4	15,104
Delaware	2,670	56.8	13	0.3	42	0.9	147	3.1	29	0.6	1,799	38.3	4,700
District of Columbia	4,341	73.3	2	0.0	73	1.2	220	3.7	39	0.7	1,245	21.0	5,919
Florida	39,672	54.9	2,305	3.2	521	0.7	3,159	4.4	1,330	1.8	25,220	34.9	72,206
Georgia	19,513	48.6	1,840	4.6	279	0.7	1,489	3.7	729	1.8	16,279	40.6	40,128
Guam	219	32.7	0	0.0	0	0.0	13	1.9	3	0.5	434	64.8	670
Hawaii	2,849	55.9	12	0.2	20	0.4	152	3.0	189	3.7	1,874	36.8	5,098
Idaho	2,945	44.2	104	1.6	53	0.8	170	2.6	187	2.8	3,202	48.1	6,661
Illinois	29,378	46.4	511	0.8	540	0.9	1,416	2.2	623	1.0	30,854	48.7	63,322
Indiana	11,689	42.3	372	1.3	150	0.5	564	2.0	336	1.2	14,517	52.5	27,629
Iowa	7,109	35.3	377	1.9	204	1.0	295	1.5	166	0.8	11,999	59.5	20,151
Kansas	5,500	32.2	491	2.9	113	0.7	272	1.6	178	1.0	10,535	61.7	17,088
Kentucky	8,275	37.9	556	2.5	134	0.6	422	1.9	288	1.3	12,169	55.7	21,844
Louisiana	9,118	42.5	617	2.9	92	0.4	683	3.2	373	1.7	10,591	49.3	21,474
Maine	2,632	41.6	21	0.3	135	2.1	90	1.4	124	2.0	3,331	52.6	6,332
Maryland	14,958	57.4	27	0.1	183	0.7	824	3.2	171	0.7	9,879	37.9	26,042
Massachusetts	20,333	53.4	30	0.1	518	1.4	1,033	2.7	285	0.7	15,904	41.7	38,102
Michigan	20,856	40.2	441	0.9	194	0.4	1,068	2.1	456	0.9	28,859	55.6	51,874
Minnesota	12,048	42.6	156	0.6	231	0.8	519	1.8	461	1.6	14,834	52.5	28,249
Mississippi	5,063	31.1	288	1.8	84	0.5	368	2.3	387	2.4	10,071	61.9	16,261
Missouri	11,644	39.3	553	1.9	150	0.5	613	2.1	299	1.0	16,378	55.3	29,637
Montana	1,679	26.3	15	0.2	42	0.7	107	1.7	44	0.7	4,507	70.5	6,394
Nebraska	3,634	34.6	95	0.9	34	0.3	175	1.7	94	0.9	6,460	61.6	10,492
Nevada	5,746	61.3	70	0.7	48	0.5	428	4.6	111	1.2	2,975	31.7	9,378
New Hampshire	3,368	47.2	9	0.1	153	2.1	126	1.8	59	0.8	3,414	47.9	7,129
New Jersey	21,858	53.7	116	0.3	260	0.6	1,237	3.0	315	0.8	16,885	41.5	40,671
New Mexico	3,760	50.5	59	0.8	40	0.5	214	2.9	98	1.3	3,278	44.0	7,449
New York	45,981	58.7	436	0.6	787	1.0	2,604	3.3	660	0.8	27,847	35.6	78,316
North Carolina	17,410	48.7	1,076	3.0	193	0.5	1,241	3.5	541	1.5	15,313	42.8	35,774
North Dakota	1,197	20.4	27	0.5	8	0.1	58	1.0	58	1.0	4,518	77.0	5,865
Northern Marianas Is.	54	54.5	0	0.0	11	10.7	4	4.4	0	0.0	30	30.4	100
Ohio	23,540	45.8	960	1.9	147	0.3	1,138	2.2	560	1.1	24,999	48.7	51,343
Oklahoma	6,572	34.1	526	2.7	49	0.3	438	2.3	215	1.1	11,483	59.5	19,283
Oregon	7,746	50.7	64	0.4	122	0.8	405	2.7	222	1.5	6,706	43.9	15,266
Pennsylvania	28,414	49.2	168	0.3	691	1.2	1,575	2.7	430	0.7	26,521	45.9	57,799
Puerto Rico	3,671	61.2	0	0.0	40	0.7	169	2.8	79	1.3	2,041	34.0	5,999
Rhode Island	3,101	59.7	3	0.1	55	1.1	117	2.2	27	0.5	1,895	36.5	5,198
South Carolina	8,725	48.0	687	3.8	109	0.6	636	3.5	334	1.8	7,699	42.3	18,189
South Dakota	1,405	23.8	24	0.4	10	0.2	88	1.5	78	1.3	4,296	72.8	5,901
Tennessee	12,973	49.6	843	3.2	186	0.7	829	3.2	340	1.3	10,990	42.0	26,161
Texas	50,850	46.0	2,502	2.3	631	0.6	3,056	2.8	2,154	1.9	51,446	46.5	110,640
Utah	6,258	56.6	65	0.6	61	0.6	266	2.4	158	1.4	4,254	38.5	11,062
Vermont	2,374	45.2	4	0.1	84	1.6	49	0.9	59	1.1	2,682	51.1	5,253
Virgin Islands	170	47.3	15	4.2	31	8.6	46	12.7	2	0.5	96	26.7	360
Virginia	18,724	59.6	36	0.1	259	0.8	1,061	3.4	285	0.9	11,056	35.2	31,420
Washington	15,836	57.6	67	0.2	132	0.5	753	2.7	464	1.7	10,264	37.3	27,515
West Virginia	2,742	41.4	49	0.7	71	1.1	110	1.7	66	1.0	3,586	54.1	6,625
Wisconsin	10,683	39.8	190	0.7	158	0.6	434	1.6	284	1.1	15,115	56.3	26,864
Wyoming	1,072	30.3	7	0.2	11	0.3	85	2.4	45	1.3	2,318	65.5	3,538
<b>Totals</b>	<b>673,204</b>	<b>48.5</b>	<b>20,173</b>	<b>1.5</b>	<b>9,576</b>	<b>0.7</b>	<b>38,142</b>	<b>2.7</b>	<b>18,919</b>	<b>1.4</b>	<b>629,064</b>	<b>45.3</b>	<b>1,389,078</b>

Source: Numbering Resource Utilization in the United States.

<sup>1</sup> Includes only telephone numbers in NXXs assigned to carriers and are therefore available for assignment to customers.  
Does not include any numbers in NXXs that have not yet been assigned to carriers.

Note: Figures may not add due to rounding.

**Table 18.4**  
**Area Codes by State**

Area Code	State/Jurisdiction	Area Code	Area Code	Area Code	Area Code	Area Code	Area Code	Area Code	Area Code	Area Code	Area Code
Code	State/Jurisdiction	Opened	Code	State/ Jurisdiction	Opened	Code	State/ Jurisdiction	Opened	Code	State/ Jurisdiction	Opened
205	Alabama	Jan-47	404	Georgia	Jan-47	218	Minnesota	Jan-47	215	Pennsylvania	Jan-47
251	Alabama	Jun-01	678	Georgia	Jan-98	320	Minnesota	Mar-96	267	Pennsylvania	Jul-99
256	Alabama	Mar-98	706	Georgia	May-92	507	Minnesota	Jan-54	412	Pennsylvania	Jan-47
334	Alabama	Jan-95	770	Georgia	Aug-95	612	Minnesota	Jan-47	484	Pennsylvania	Jun-99
938	Alabama	Jul-10	912	Georgia	Jan-54	651	Minnesota	Jul-98	570	Pennsylvania	Dec-98
907	Alaska	Jan-57	671	Guam	Jul-97	228	Mississippi	Sep-97	610	Pennsylvania	Jan-94
684	American Samoa	Oct-04	808	Hawaii	Jan-57	601	Mississippi	Jan-47	717	Pennsylvania	Jan-47
480	Arizona	Mar-99	208	Idaho	Jan-47	662	Mississippi	Apr-99	724	Pennsylvania	Feb-98
520	Arizona	Mar-95	217	Illinois	Jan-47	769	Mississippi	Mar-05	814	Pennsylvania	Jan-47
602	Arizona	Jan-47	224	Illinois	Jan-02	314	Missouri	Jan-47	787	Puerto Rico	Mar-96
623	Arizona	Mar-99	309	Illinois	Jan-57	417	Missouri	Jan-50	939	Puerto Rico	Sep-01
928	Arizona	Jun-01	312	Illinois	Jan-47	573	Missouri	Jan-96	401	Rhode Island	Jan-47
479	Arkansas	Jan-02	331	Illinois	Oct-07	636	Missouri	May-99	803	South Carolina	Jan-47
501	Arkansas	Jan-47	618	Illinois	Jan-47	660	Missouri	Oct-97	843	South Carolina	Mar-98
870	Arkansas	Apr-97	630	Illinois	Aug-96	816	Missouri	Jan-47	864	South Carolina	Dec-95
209	California	Jan-58	708	Illinois	Nov-89	406	Montana	Jan-47	605	South Dakota	Jan-47
213	California	Jan-47	773	Illinois	Oct-96	308	Nebraska	Jan-55	423	Tennessee	Sep-95
310	California	Nov-91	779	Illinois	Mar-07	402	Nebraska	Jan-47	615	Tennessee	Jan-54
323	California	Jun-98	815	Illinois	Jan-47	531	Nebraska	Mar-11	731	Tennessee	Feb-01
408	California	Jan-59	847	Illinois	Jan-96	702	Nevada	Jan-47	865	Tennessee	Nov-99
415	California	Jan-47	872	Illinois	Nov-09	775	Nevada	Dec-98	901	Tennessee	Jan-47
424	California	Aug-06	219	Indiana	Jan-47	603	New Hampshire	Jan-47	931	Tennessee	Sep-97
442	California	Nov-09	260	Indiana	Jan-02	201	New Jersey	Jan-47	210	Texas	Nov-92
510	California	Sep-91	317	Indiana	Jan-47	551	New Jersey	Dec-01	214	Texas	Jan-47
530	California	Nov-97	574	Indiana	Jan-02	609	New Jersey	Jan-57	254	Texas	May-97
559	California	Nov-98	765	Indiana	Feb-97	732	New Jersey	Jun-97	281	Texas	Nov-96
562	California	Jan-97	812	Indiana	Jan-47	848	New Jersey	Dec-01	325	Texas	Apr-03
619	California	Jan-82	319	Iowa	Jan-47	856	New Jersey	Jun-99	361	Texas	Feb-99
626	California	Jun-97	515	Iowa	Jan-47	862	New Jersey	Dec-01	409	Texas	Nov-82
650	California	Aug-97	563	Iowa	Mar-01	908	New Jersey	Nov-90	430	Texas	Feb-03
657	California	Sep-08	641	Iowa	Jul-00	973	New Jersey	Jun-97	432	Texas	Apr-03
661	California	Feb-99	712	Iowa	Jan-47	505	New Mexico	Jan-47	469	Texas	Jul-99
707	California	Jan-59	316	Kansas	Jan-47	575	New Mexico	Oct-07	512	Texas	Jan-47
714	California	Jan-51	620	Kansas	Feb-01	212	New York	Jan-47	682	Texas	Oct-00
747	California	May-09	785	Kansas	Jul-97	315	New York	Jan-47	713	Texas	Jan-47
760	California	Mar-97	913	Kansas	Jan-47	347	New York	Oct-99	806	Texas	Jan-57
805	California	Jan-57	270	Kentucky	Apr-99	516	New York	Jan-51	817	Texas	Jan-53
818	California	Jan-84	364	Kentucky	Oct-11	518	New York	Jan-47	830	Texas	Jul-97
831	California	Jul-98	502	Kentucky	Jan-47	585	New York	Nov-01	832	Texas	Jan-99
858	California	Jun-99	606	Kentucky	Jan-55	607	New York	Jan-54	903	Texas	Nov-90
909	California	Nov-92	859	Kentucky	Apr-00	631	New York	Nov-99	915	Texas	Jan-47
916	California	Jan-47	225	Louisiana	Aug-98	646	New York	Jul-99	936	Texas	Feb-00
925	California	Mar-98	318	Louisiana	Jan-57	716	New York	Jan-47	940	Texas	May-97
949	California	Apr-98	337	Louisiana	Oct-99	718	New York	Sep-84	956	Texas	Jul-97
951	California	Jul-04	504	Louisiana	Jan-00	845	New York	Jun-00	972	Texas	Sep-96
303	Colorado	Jan-47	985	Louisiana	Feb-01	914	New York	Jan-47	979	Texas	Feb-00
719	Colorado	Mar-88	207	Maine	Jan-47	917	New York	Jan-92	385	Utah	Mar-09
720	Colorado	Jun-98	240	Maryland	Jun-97	252	North Carolina	Mar-98	435	Utah	Sep-97
970	Colorado	Apr-95	301	Maryland	Jan-47	336	North Carolina	Dec-97	801	Utah	Jan-47
203	Connecticut	Jan-47	410	Maryland	Oct-91	704	North Carolina	Jan-47	802	Vermont	Jan-47
475	Connecticut	Dec-09	443	Maryland	Jun-97	828	North Carolina	Mar-98	340	Virgin Islands	Jun-97
860	Connecticut	Aug-95	339	Massachusetts	May-01	910	North Carolina	Nov-93	276	Virginia	Sep-01
302	Delaware	Jan-47	351	Massachusetts	May-01	919	North Carolina	Jan-54	434	Virginia	Jun-01
202	District of Columbia	Jan-47	413	Massachusetts	Jan-47	980	North Carolina	Apr-01	540	Virginia	Jul-95
239	Florida	Mar-02	508	Massachusetts	Jul-88	701	North Dakota	Jan-47	571	Virginia	Mar-00
305	Florida	Jan-47	617	Massachusetts	Jan-47	670	Northern Marianas Is.	Jul-97	703	Virginia	Jan-47
321	Florida	Nov-99	774	Massachusetts	May-01	216	Ohio	Jan-47	757	Virginia	Jul-96
352	Florida	Dec-95	781	Massachusetts	Sep-97	234	Ohio	Oct-00	804	Virginia	Jun-73
386	Florida	Feb-01	857	Massachusetts	May-01	330	Ohio	Mar-96	206	Washington	Jan-47
407	Florida	Apr-88	978	Massachusetts	Sep-97	419	Ohio	Jan-47	253	Washington	Apr-97
561	Florida	May-96	231	Michigan	Jun-99	440	Ohio	Aug-97	360	Washington	Jan-95
727	Florida	Jul-98	248	Michigan	May-97	513	Ohio	Jan-47	425	Washington	Apr-97
754	Florida	Aug-01	269	Michigan	Jul-02	567	Ohio	Jan-02	509	Washington	Jan-57
772	Florida	Feb-02	313	Michigan	Jan-47	614	Ohio	Jan-47	304	West Virginia	Jan-47
786	Florida	Mar-98	517	Michigan	Jan-47	740	Ohio	Dec-97	681	West Virginia	Mar-09
813	Florida	Jan-53	586	Michigan	Sep-01	937	Ohio	Sep-96	262	Wisconsin	Sep-99
850	Florida	Jun-97	616	Michigan	Jan-47	405	Oklahoma	Jan-47	274	Wisconsin	Mar-12
863	Florida	Sep-99	734	Michigan	Dec-97	580	Oklahoma	Nov-97	414	Wisconsin	Jan-47
904	Florida	Jul-65	810	Michigan	Dec-93	918	Oklahoma	Jan-53	534	Wisconsin	Aug-10
941	Florida	May-95	906	Michigan	Mar-61	458	Oregon	Feb-10	608	Wisconsin	Jan-55
954	Florida	Sep-95	947	Michigan	Sep-02	503	Oregon	Jan-47	715	Wisconsin	Jan-47
229	Georgia	Aug-00	989	Michigan	Apr-01	541	Oregon	Nov-95	920	Wisconsin	Jul-97
478	Georgia	Aug-00	763	Minnesota	Feb-00	971	Oregon	Oct-00	307	Wyoming	Jan-47
762	Georgia	May-06	952	Minnesota	Feb-00	878	Pennsylvania	Aug-01			

Source: North American Numbering Plan Administrator. Note: Implementation dates after 2009 are scheduled dates.

**Table 18.5**  
**Area Code Assignments (since 1999)**

Location	Implementation Date <sup>1</sup>	Previous Code	Added Code
Texas (Houston)	Jan-99	713	832
California	Feb-99	805	661
Texas	Feb-99	512	361
Arizona	Mar-99	602	480
Arizona	Mar-99	602	623
Kentucky	Apr-99	502	270
Mississippi	Apr-99	601	662
Alberta	May-99	403	780
Missouri	May-99	314	636
Michigan	Jun-99	616	231
Pennsylvania	Jun-99	610	484
California	Jun-99	619	858
New Jersey	Jun-99	609	856
New York (Manhattan)	Jul-99	212	646
Pennsylvania	Jul-99	215	267
Texas (Dallas)	Jul-99	214	469
Florida	Sep-99	941	863
Wisconsin	Sep-99	414	262
New York	Oct-99	718	347
Louisiana	Oct-99	318	337
Florida	Nov-99	407	321
New York	Nov-99	516	631
Tennessee	Nov-99	423	865
Texas	Feb-00	409	936
Texas	Feb-00	409	979
Minnesota	Feb-00	612	763
Minnesota	Feb-00	612	952
Virginia	Mar-00	703	571
Kentucky	Apr-00	606	859
New York	Jun-00	914	845
Iowa	Jul-00	515	641
Georgia	Aug-00	912	229
Georgia	Aug-00	912	478
Oregon	Oct-00	503	971
Texas	Oct-00	817	682
Ohio	Oct-00	330	234
Kansas	Feb-01	316	620
Louisiana	Feb-01	504	985
Tennessee	Feb-01	901	731
Florida	Feb-01	904	386
Ontario	Mar-01	416	647
Iowa	Mar-01	319	563
North Carolina	Apr-01	704	980
Michigan	Apr-01	517	989
Massachusetts	May-01	508	774
Massachusetts	May-01	617	857
Massachusetts	May-01	781	339
Massachusetts	May-01	978	351
Pennsylvania	May-01	484	835 <sup>2</sup>
Pennsylvania	May-01	267	445 <sup>3</sup>
Virginia	Jun-01	804	434
Ontario	Jun-01	905	289
Alabama	Jun-01	334	251
Arizona	Jun-01	520	928
Florida	Aug-01	954	754

**Table 18.5**  
**Area Code Assignments (since 1999)**

Location	Implementation Date <sup>1</sup>	Previous Code	Added Code
Pennsylvania	Aug-01	412	878
Virginia	Sep-01	540	276
Puerto Rico	Sep-01	787	939
Michigan	Sep-01	810	586
British Columbia	Nov-01	604	778
New York	Nov-01	716	585
New Jersey	Dec-01	201	551
New Jersey	Dec-01	732	848
New Jersey	Dec-01	973	862
Ohio	Jan-02	419	567
Illinois	Jan-02	847	224
Indiana	Jan-02	219	260
Indiana	Jan-02	219	574
Arkansas	Jan-02	501	479
Florida	Feb-02	561	772
Florida	Mar-02	941	239
Michigan	Jul-02	616	269
Michigan	Sep-02	248	947
Texas	Feb-03	903	430
Texas	Apr-03	915	325
Texas	Apr-03	915	432
California	Jul-04	909	951
Mississippi	Mar-05	601	769
Dominican Republic	Aug-05	809	829
Georgia	May-06	706	762
California	Aug-06	310	424
Ontario	Oct-06	519	226
Quebec	Nov-06	514	438
Illinois	Mar-07	815	779
Illinois	Oct-07	630	331
New Mexico	Oct-07	505	575
California	Sep-08	714	657
Kentucky	Jan-09	270	364
Utah	Mar-09	801	385
California	May-09	818	747
Illinois	Nov-09	312	872
California	Nov-09	760	442
Connecticut	Dec-09	203	475
Oregon	Feb-10	541	458
Alabama	Jul-10	256	938
Wisconsin	Aug-10	715	534
Nebraska	Mar-11	402	531
Kentucky	Oct-11	270	364
Wisconsin	Mar-12	920	274

Note: For years 1984 - 1998, see Industry Analysis and Technology Division, Wireline Competition Bureau, *Trends in Telephone Service* (August 2003).

<sup>1</sup> Implementation dates after 2009 are scheduled dates.

<sup>2</sup> The NANPA was able to reclaim area code 835. See Planning Letter 344.

<sup>3</sup> The NANPA was able to reclaim area code 445. See Planning Letter 332.

Source: North American Numbering Plan Administrator (NANPA), which can be accessed at [www.nanpa.com](http://www.nanpa.com). Planning letters can be found at [www.nanpa.com/planning\\_letters/index.html](http://www.nanpa.com/planning_letters/index.html).

**Table 18.6**  
**Telephone Numbers Assigned for Toll-Free Service (800, 888, 877, 866)<sup>1</sup>**

Year	Month	Working Numbers	Miscellaneous Numbers <sup>2</sup>	Total Numbers	Spare Numbers Still Available
1993	December	3,155,955	731,438	3,887,393	3,822,607
1994	December	4,948,605	763,235	5,711,840	1,998,160
1995	December	6,700,576	286,487	6,987,063	722,937
1996	December	9,527,982	945,671	10,473,653	5,216,347
1997	December	12,980,714	996,449	13,977,163	1,712,837
1998	December	16,200,883	965,466	17,166,349	6,503,651
1999	December	19,677,001	1,101,964	20,778,965	2,891,035
2000	December	23,022,015	1,178,096	24,200,111	7,449,889
2001	December	23,453,029	1,027,973	24,481,002	7,168,998
2002	December	22,496,215	1,051,232	23,547,447	8,102,553
2003	December	21,108,662	941,520	22,050,182	9,599,818
2004	December	22,159,440	1,145,661	23,305,101	8,344,899
2005	December	22,474,643	957,835	23,432,478	8,217,522
2006	December	22,709,753	756,808	23,466,561	8,183,439
2007 <sup>3</sup>	December	23,902,113	585,864	24,487,982	7,322,018
2008	December	24,556,244	773,164	25,329,408	6,480,592
2009	September	25,534,225	504,064	26,038,289	5,771,711

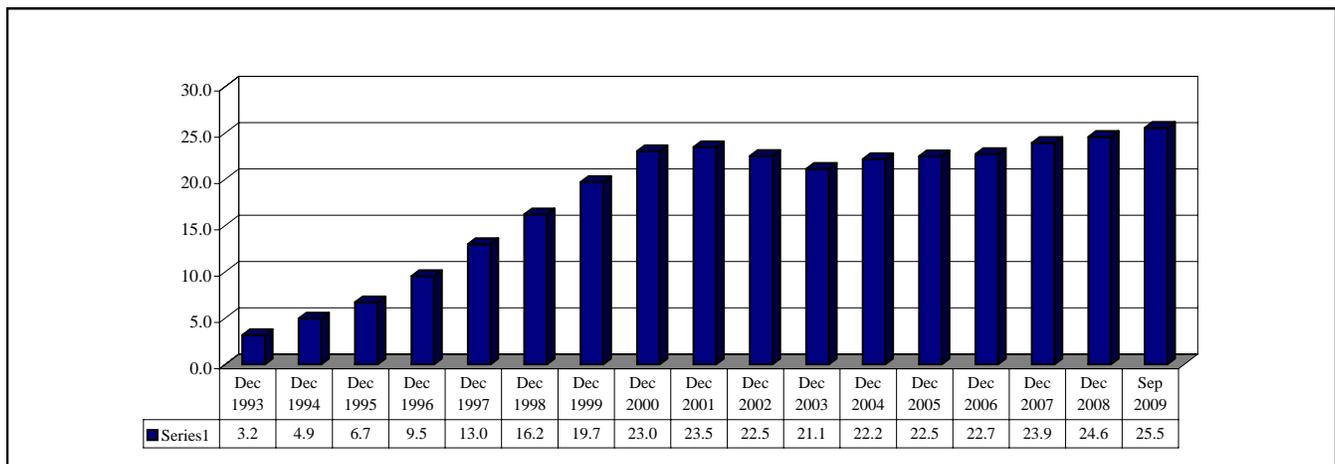
Note: For individual month assignments through June 2003, see Industry Analysis and Technology Division, Wireline Competition Bureau, *Trends in Telephone Service* (August 2003).

<sup>1</sup> Toll-free (800) service was initially offered by AT&T in 1967. On May 1, 1993, procedures for routing toll-free calls were changed and 800 numbers were made "portable" so customers who switched service providers could retain their numbers. Due to the growth in demand for toll-free numbers, a new toll-free calling code, 888, was added in March 1996, which made it possible to assign about 8 million new toll-free numbers. A third toll-free calling code, 877, was added in April 1998; and a fourth toll-free code, 866, was added in July 2000.

<sup>2</sup> Miscellaneous numbers include those in the 800, 888, 877, and 866 service management systems maintained by Database Service Management, Inc., and categorized as reserved, assigned but not yet activated, recently disconnected, or suspended.

<sup>3</sup> SMS800 freed up all unused numbers contained in certain blocks of numbers that were reserved for the provision of certain mobile radio telecommunications (pager) services within a specified geographic area. These numbers were in NPA 800 and had NXXs in the range of NX2 where 'N' = 2 through 9 and 'X' = 0 for 1 and the numbers ended in a state code. <http://www.sms800.com/PublicContent.aspx?Text=2008&URL=Shared+Documents%2fPublic%2fNews%2f2008&Site=Public>, visited January 15, 2010.

**Chart 18.1 Working Toll-Free Numbers (Numbers in Millions)**



**Table 18.7**  
**Telephone Numbers Assigned for 800 Toll-Free Service<sup>1</sup>**

Year	Month	Working Toll-Free Numbers	Miscellaneous Toll-Free Numbers <sup>2</sup>	Total Toll-Free Numbers Assigned	Spare Toll-Free Numbers Still Available
1998	June	7,480,468	227,041	7,707,509	2,491
	September	7,489,271	219,080	7,708,351	1,649
	December	7,487,529	215,267	7,702,796	7,204
1999	March	7,498,527	204,515	7,703,042	6,958
	June	7,502,118	207,061	7,709,179	821
	September	7,523,302	185,363	7,708,665	1,335
	December	7,505,737	202,416	7,708,153	1,847
2000	March	7,516,391	193,246	7,709,637	363
	June	7,570,082	139,444	7,709,526	474
	September	7,572,091	137,705	7,709,796	204
	December	7,566,810	132,887	7,699,697	10,303
2001	March	7,434,621	264,967	7,699,588	10,412
	June	7,357,279	242,106	7,599,385	110,615
	September	7,383,111	164,881	7,547,992	162,008
	December	7,370,055	184,689	7,554,744	155,256
2002	March	7,181,636	400,955	7,582,591	127,409
	June	7,234,847	282,005	7,516,852	193,148
	September	7,200,821	177,723	7,378,544	331,456
	December	7,210,159	203,268	7,413,427	296,573
2003	March	7,182,120	224,536	7,406,656	303,344
	June	7,171,068	234,576	7,405,644	304,356
	September	7,031,806	222,846	7,254,652	455,348
	December	7,089,752	260,807	7,350,559	359,441
2004	March	7,187,381	234,719	7,422,100	287,900
	June	7,181,216	187,107	7,368,323	341,677
	September	7,262,915	197,252	7,460,167	249,833
	December	7,332,085	208,368	7,540,453	169,547
2005	March	7,267,936	234,679	7,502,615	207,385
	June	7,163,402	425,206	7,588,608	121,392
	September	7,160,678	495,326	7,656,004	53,996
	December	7,317,165	277,052	7,594,217	115,783
2006	March	7,416,046	197,083	7,613,129	96,871
	June	7,330,416	317,525	7,647,941	62,059
	September	7,419,137	279,471	7,698,608	11,392
	December	7,445,535	207,672	7,653,207	56,793
2007	March	7,559,307	140,686	7,699,993	10,007
	June	7,546,532	153,063	7,699,595	10,405
	September	7,597,883	102,117	7,700,000	10,000
	December	7,736,774 <sup>3</sup>	123,226	7,860,000	10,000 <sup>3</sup>
2008	March	7,731,284 <sup>3</sup>	128,716	7,860,000	10,000 <sup>3</sup>
	June	7,686,736	173,264	7,860,000	10,000 <sup>3</sup>
	September	7,755,279	104,721	7,860,000	10,000 <sup>3</sup>
	December	7,731,430	128,570	7,860,000	10,000 <sup>3</sup>
2009	March	7,752,946	107,054	7,860,000	10,000 <sup>3</sup>
	June	7,775,315	84,685	7,860,000	10,000 <sup>3</sup>
	September	7,780,198	79,802	7,860,000	10,000 <sup>3</sup>

<sup>1</sup> For data before 1998, see the August 2008 edition of *Trends in Telephone Service*.

<sup>2</sup> See Notes to Table 18.6.

<sup>3</sup> See Notes to Table 18.6.

**Table 18.8**  
**Telephone Numbers Assigned for 888 Toll-Free Service<sup>1</sup>**

Year	Month	Working Toll-Free Numbers	Miscellaneous Toll-Free Numbers <sup>2</sup>	Total Toll-Free Numbers Assigned	Spare Toll-Free Numbers Still Available
1998	June	6,591,764	665,496	7,257,260	722,740
	September	6,898,718	612,254	7,510,972	469,028
	December	7,146,159	515,009	7,661,168	318,832
1999	March	7,278,531	495,904	7,774,435	205,565
	June	7,428,424	231,697	7,660,121	319,879
	September	7,601,867	211,318	7,813,185	166,815
	December	7,643,158	324,405	7,967,563	12,437
2000	March	7,685,423	230,035	7,915,458	64,542
	June	7,789,986	140,658	7,930,644	49,356
	September	7,806,252	173,588	7,979,840	160
	December	7,789,188	177,328	7,966,516	13,484
2001	March	7,616,189	355,451	7,971,640	8,360
	June	7,548,761	270,198	7,818,959	161,041
	September	7,508,100	203,518	7,711,618	268,382
	December	7,452,071	190,727	7,642,798	337,202
2002	March	6,964,624	577,910	7,542,534	437,466
	June	6,629,862	354,771	6,984,633	995,367
	September	6,682,043	92,050	6,774,093	1,205,907
	December	6,610,191	154,015	6,764,206	1,215,794
2003	March	6,408,723	324,558	6,733,281	1,246,719
	June	6,228,846	251,701	6,480,547	1,499,453
	September	5,818,266	216,862	6,035,128	1,944,872
	December	5,711,949	250,662	5,962,611	2,017,389
2004	March	5,680,105	133,824	5,813,929	2,166,071
	June	5,640,743	128,141	5,768,884	2,211,116
	September	5,716,957	210,068	5,927,025	2,052,975
	December	5,563,469	384,320	5,947,789	2,032,211
2005	March	5,465,594	159,097	5,624,691	2,355,309
	June	5,306,927	296,729	5,603,656	2,376,344
	September	5,314,969	221,122	5,536,091	2,443,909
	December	5,265,331	196,817	5,462,148	2,517,852
2006	March	5,049,966	321,175	5,371,141	2,608,859
	June	4,930,939	387,726	5,318,665	2,661,335
	September	4,923,018	282,840	5,205,858	2,774,142
	December	4,894,774	154,764	5,049,538	2,930,462
2007	March	4,865,839	172,035	5,037,874	2,942,126
	June	4,892,896	211,491	5,104,387	2,875,613
	September	5,014,039	143,278	5,157,317	2,822,683
	December	5,075,256	134,928	5,210,184	2,769,816
2008	March	5,131,254	300,830	5,432,084	2,547,916
	June	5,153,074	328,514	5,481,588	2,498,412
	September	5,212,933	131,617	5,344,550	2,635,450
	December	5,204,756	195,377	5,400,133	2,579,867
2009	March	5,221,440	186,536	5,407,976	2,572,024
	June	5,306,134	123,891	5,430,025	2,549,975
	September	5,468,278	120,409	5,588,687	2,391,313

<sup>1</sup> For data before 1998, see the August 2008 edition of *Trends in Telephone Service*.

<sup>2</sup> See Notes to Table 18.6.

**Table 18.9**  
**Telephone Numbers Assigned for 877 Toll-Free Service<sup>1</sup>**

Year	Month	Working Toll-Free Numbers	Miscellaneous Toll-Free Numbers <sup>2</sup>	Total Toll-Free Numbers Assigned	Spare Toll-Free Numbers Still Available
1998	June	552,037	209,967	762,004	7,217,996
	September	1,072,046	206,714	1,278,760	6,701,240
	December	1,567,195	235,190	1,802,385	6,177,615
1999	March	2,141,228	329,044	2,470,272	5,509,728
	June	2,899,466	410,026	3,309,492	4,670,508
	September	3,755,361	436,433	4,191,794	3,788,206
	December	4,528,106	575,143	5,103,249	2,876,751
2000	March	5,436,297	598,702	6,034,999	1,945,001
	June	6,317,507	402,858	6,720,365	1,259,635
	September	6,539,180	496,015	7,035,195	944,805
	December	6,391,285	719,333	7,110,618	869,382
2001	March	6,289,079	469,980	6,759,059	1,220,941
	June	6,094,898	715,097	6,809,995	1,170,005
	September	6,163,297	489,084	6,652,381	1,327,619
	December	6,214,863	345,468	6,560,331	1,419,669
2002	March	6,174,529	340,472	6,515,001	1,464,999
	June	6,016,107	267,320	6,283,427	1,696,573
	September	5,656,158	275,722	5,931,880	2,048,120
	December	5,448,276	421,984	5,870,260	2,109,740
2003	March	5,132,413	579,240	5,711,653	2,268,347
	June	4,791,792	376,236	5,168,028	2,811,972
	September	4,617,147	170,787	4,787,934	3,192,066
	December	4,536,366	191,410	4,727,776	3,252,224
2004	March	4,528,716	163,856	4,692,572	3,287,428
	June	4,550,870	146,826	4,697,696	3,282,304
	September	4,537,840	214,197	4,752,037	3,227,963
	December	4,551,486	254,082	4,805,568	3,174,432
2005	March	4,590,227	139,089	4,729,316	3,250,684
	June	4,498,452	232,477	4,730,929	3,249,071
	September	4,476,657	193,315	4,669,972	3,310,028
	December	4,424,365	212,543	4,636,908	3,343,092
2006	March	4,387,383	178,974	4,566,357	3,413,643
	June	4,227,659	203,501	4,431,160	3,548,840
	September	4,216,739	221,090	4,437,829	3,542,171
	December	4,158,082	191,476	4,349,558	3,630,442
2007	March	4,160,134	126,236	4,286,370	3,693,630
	June	4,176,830	168,005	4,344,835	3,635,165
	September	4,186,296	140,506	4,326,802	3,653,198
	December	4,236,995	151,687	4,388,682	3,591,318
2008	March	4,243,519	150,600	4,394,119	3,585,881
	June	4,312,293	204,414	4,516,707	3,463,293
	September	4,105,708	266,286	4,371,994	3,608,006
	December	4,126,424	187,099	4,313,523	3,666,477
2009	March	4,159,486	144,758	4,304,244	3,675,756
	June	4,390,811	169,577	4,560,388	3,419,612
	September	4,583,580	138,286	4,721,866	3,258,134

<sup>1</sup> For data before 1998, see the August 2008 edition of *Trends in Telephone Service*.

<sup>2</sup> See Notes to Table 18.6.

**Table 18.10**  
**Telephone Numbers Assigned for 866 Toll-Free Service**

Year	Month	Working Toll-Free Numbers	Miscellaneous Toll-Free Numbers <sup>2</sup>	Total Toll-Free Numbers Assigned	Spare Toll-Free Numbers Still Available
2000	September	672,250	155,646	827,896	7,152,104
	December	1,274,732	148,548	1,423,280	6,556,720
2001	March	1,652,602	361,888	2,014,490	5,965,510
	June	1,944,520	362,880	2,307,400	5,672,600
	September	2,256,792	308,801	2,565,593	5,414,407
	December	2,416,040	307,089	2,723,129	5,256,871
2002	March	2,640,414	321,530	2,961,944	5,018,056
	June	2,864,605	219,232	3,083,837	4,896,163
	September	2,977,379	244,297	3,221,676	4,758,324
	December	3,227,589	271,965	3,499,554	4,480,446
2003	March	3,461,686	299,700	3,761,386	4,218,614
	June	3,486,674	420,477	3,907,151	4,072,849
	September	3,609,244	265,446	3,874,690	4,105,310
	December	3,770,595	238,641	4,009,236	3,970,764
2004	March	3,966,922	231,683	4,198,605	3,781,395
	June	4,281,378	263,560	4,544,938	3,435,062
	September	4,476,150	281,577	4,757,727	3,222,273
	December	4,712,400	298,891	5,011,291	2,968,709
2005	March	5,015,324	267,412	5,282,736	2,697,264
	June	5,047,314	487,471	5,534,785	2,445,215
	September	5,259,730	352,226	5,611,956	2,368,044
	December	5,467,782	271,423	5,739,205	2,240,795
2006	March	5,613,475	211,021	5,824,496	2,155,504
	June	5,803,923	205,051	6,008,974	1,971,026
	September	6,078,119	160,737	6,238,856	1,741,144
	December	6,201,362	212,896	6,414,258	1,565,742
2007	March	6,355,241	207,073	6,562,314	1,417,686
	June	6,555,756	240,460	6,796,216	1,183,784
	September	6,685,581	219,067	6,904,648	1,075,352
	December	6,853,093	176,023	7,029,116	950,884
2008	March	7,001,587	191,687	7,193,274	786,726
	June	7,192,852	225,175	7,418,027	561,973
	September	7,304,334	284,988	7,589,322	390,678
	December	7,493,634	262,118	7,755,752	244,248
2009	March	7,752,906	193,240	7,946,146	33,854
	June	7,766,358	185,149	7,951,507	28,493
	September	7,702,169	165,567	7,867,736	112,264

<sup>2</sup> See Notes to Table 18.6.

**Table 18.11**  
**Number of Digits Necessary to Dial Local and Toll Calls from Wireline Phones**  
**(As of November 2009)**

State	Local Calls		Toll Calls		Toll Calls Require Dialing 1 +
	Within Same Area Code	Between Area Codes	Within Same Area Code	Between Area Codes	
Alabama	7 <sup>1</sup>	10 <sup>2</sup>	1 + 10	1 + 10	Yes
Alaska	7	1 + 10	1 + 10	1 + 10	Yes
Arizona	7	10	1 + 10	1 + 10	Yes
Arkansas	7	10	1 + 10	1 + 10	Yes
California	7 <sup>3</sup>	1 + 10	7 <sup>3</sup>	1 + 10	No
Colorado	7 <sup>4</sup>	10	1 + 10	1 + 10	Yes
Connecticut	7 <sup>5</sup>	10	1 + 10	1 + 10	Yes
Delaware	7	10	1 + 10	1 + 10	Yes
District of Columbia	7	10	NA	1 + 10	Yes
Florida	7 <sup>6</sup>	10	1 + 10	1 + 10	Yes
Georgia	7 <sup>7</sup>	10	1 + 10	1 + 10	Yes
Hawaii	7	NA	1 + 10	1 + 10	Yes
Idaho	7	7	1 + 10	1 + 10	Yes
Illinois	7 <sup>8</sup>	1 + 10	1 + 10	1 + 10	Yes
Indiana	7	10	1 + 10	1 + 10	Yes
Iowa	7	10	1 + 10	1 + 10	Yes
Kansas	7	10	1 + 10	1 + 10	Yes
Kentucky	7	10 <sup>9</sup>	1 + 10	1 + 10	Yes
Louisiana	7	10	1 + 10	1 + 10	Yes
Maine	7	1 + 10	7	1 + 10	No
Maryland	10	10	1 + 10	1 + 10	Yes
Massachusetts	10 <sup>10</sup>	10	1 + 10	1 + 10	Yes
Michigan	7 <sup>11</sup>	10	1 + 10	1 + 10	Yes
Minnesota	7	10 <sup>12</sup>	1 + 10	1 + 10	Yes
Mississippi	7 <sup>13</sup>	10	1 + 10	1 + 10	Yes
Missouri	7 <sup>14</sup>	10	1 + 10	1 + 10	Yes
Montana	7	7	1 + 10	1 + 10	Yes
Nebraska	7 <sup>15</sup>	7 <sup>15</sup>	1 + 10	1 + 10	Yes
Nevada	7	10	1 + 10	1 + 10	Yes
New Hampshire	7	1 + 10	7	1 + 10	No
New Jersey	10 <sup>16</sup>	1 + 10	10 <sup>16</sup>	1 + 10	No
New Mexico	7	10	1 + 10	1 + 10	Yes
New York	7 <sup>17</sup>	1 + 10	7 <sup>17</sup>	1 + 10	No
North Carolina	7 <sup>18</sup>	10	1 + 10	1 + 10	Yes
North Dakota	7	7	1 + 10	1 + 10	Yes
Ohio	7 <sup>19</sup>	10	1 + 10	1 + 10	Yes
Oklahoma	7	7	1 + 10	1 + 10	Yes
Oregon	10 <sup>20</sup>	10	1 + 10	1 + 10	Yes
Pennsylvania	10 <sup>21</sup>	1 + 10 <sup>22</sup>	10 <sup>21</sup>	1 + 10 <sup>22</sup>	No
Rhode Island	7	1 + 10	7	1 + 10	No
South Carolina	7	10	1 + 10	1 + 10	Yes
South Dakota	7	7	1 + 10	1 + 10	Yes
Tennessee	7	10 <sup>23</sup>	1 + 10	1 + 10	Yes
Texas	7 <sup>24</sup>	10	1 + 10	1 + 10	Yes
Utah	10 <sup>25</sup>	10 <sup>25</sup>	1 + 10	1 + 10	Yes
Vermont	7	1 + 10	1 + 10	1 + 10	Yes
Virginia	7 <sup>26</sup>	10	1 + 10	1 + 10	Yes
Washington	7 <sup>27</sup>	10	1 + 10	1 + 10	Yes
West Virginia	10	10	1 + 10	1 + 10	Yes
Wisconsin	7 <sup>28</sup>	1 + 10	1 + 10	1 + 10	Yes
Wyoming	7	7	1 + 10	1 + 10	Yes

NA - Not Applicable.

Source: NPA database. The database is available at [www.nanpa.com/area\\_codes/index.html](http://www.nanpa.com/area_codes/index.html).

## Notes to Table 18.11

- <sup>1</sup> In area code 659 and 938, 10-digit dialing is used.
- <sup>2</sup> In area code 659 and 907, 1+10-digit dialing is used.
- <sup>3</sup> In area codes 310, 442, 424, 657, 714, 747, 760 and 818, 1+10-digit dialing is used.
- <sup>4</sup> In area codes 303 and 720, 10-digit dialing is used.
- <sup>5</sup> In area codes 475 and 959, 10-digit dialing is used.
- <sup>6</sup> In area codes 305, 321, 407, 689, 754, 786, and 954, 10-digit dialing is used.
- <sup>7</sup> In area codes 404, 470, 678, 762, 706 and 770, 10-digit dialing is used.
- <sup>8</sup> In area codes 224, 331, 464, 447, 630, 779, 815, 847 and 872, 1+ 10-digit dialing is used.  
In addition, in area code 770, 10-digit dialing is used.
- <sup>9</sup> In area codes 270, 364 and 502, 7-digit dialing is used.
- <sup>10</sup> In area code 413, 7-digit dialing is used.
- <sup>11</sup> In area codes 248, 679 and 947, 10-digit dialing is used.
- <sup>12</sup> In area codes 218, 320, and 507, 7-digit dialing is used.
- <sup>13</sup> In area codes 601 and 769, 10-digit dialing is used.
- <sup>14</sup> In area codes 557 and 975, 10-digit dialing is used.
- <sup>15</sup> In area codes 531, 10-digit dialing is used.
- <sup>16</sup> In area codes 609, 856, and 908, 7-digit dialing is used.
- <sup>17</sup> In area codes 212, 347, 646, 718, and 917, 1+10 digit dialing is used.
- <sup>18</sup> In area codes 704, 980 and 984, 10-digit dialing is used.
- <sup>19</sup> In area codes 234, 283, 330, 380, 419, and 567, 10-digit dialing is used.
- <sup>20</sup> In area code 541, 7-digit dialing is used.
- <sup>21</sup> In area codes 570, 717, and 814, 7-digit dialing is used.
- <sup>22</sup> In some area codes, local calls to some other area codes may be dialed using 10 digits.
- <sup>23</sup> In area codes 615 and 931, 7-digit dialing is used.
- <sup>24</sup> In area codes 214, 281, 430, 469, 682, 713, 817, 832, 903, and 972, 10-digit dialing is used.
- <sup>25</sup> In area code 435, 7-digit dialing is used.
- <sup>26</sup> In area codes 571 and 703, 10-digit dialing is used.
- <sup>27</sup> In area code 564, 10-digit dialing is used.
- <sup>28</sup> In area code 274 and 534, 10-digit dialing is used.

# 19 Universal Service

## 1. Overview

There are four universal service support mechanisms: 1) High Cost, 2) Low Income, including Lifeline and Link-Up, 3) Schools and Libraries, and 4) Rural Health Care.<sup>1</sup> High Cost support enables carriers with above-average costs to recover some of these costs from the support mechanisms, allowing these carriers to lower their end-user rates and/or to receive less money from state universal service support mechanisms.

The Lifeline program promotes increased telephone subscribership by providing low-income households with discounts on the monthly cost of telephone service. The Link-Up America program promotes telephone subscribership by helping low-income households pay the initial costs of commencing telephone service.

Schools and Libraries support enables eligible schools and libraries to obtain eligible services, including telecommunications services, at discounted rates. Rural Health Care support allows rural health care providers to purchase telecommunications services at comparable urban rates.

Table 19.1 shows universal service support disbursements for 2007 and 2008.<sup>2</sup> Chart 19.1 shows this information graphically for 2008. Table 19.2 and Chart 19.2 show the type of service providers that received universal service support in 2008.

## 2. High Cost

The High Cost support mechanisms include embedded high-cost loop support (HCLS),<sup>3</sup> safety net additive support (SNAS), safety valve support (SVS), local switching support (LSS), forward-looking high-cost model support (HCMS), interstate access support (IAS) for price-cap carriers, and interstate common line support (ICLS) for rate-of-return carriers.<sup>4</sup>

HCLS provides assistance to companies with above average non-traffic-sensitive local loop costs – terminology that refers to the costs of providing loops connecting customers and

---

<sup>1</sup> Additional information on universal service mechanisms is available in the *Universal Service Monitoring Report* (December 2009). See <http://www.fcc.gov/wcb/iatd/monitor.html>.

<sup>2</sup> The figures used in this table are for the calendar year and include disbursements that were paid out in 2007 and 2008.

<sup>3</sup> This was formerly referred to as the Universal Service Fund, and still bears that name in the Commission rules. It is now referred to as high-cost loop support to avoid confusion with the new, more comprehensive universal service support mechanisms that the Commission developed to implement the 1996 Act. See 47 C.F.R. § 36.601.

<sup>4</sup> Prior to July 1, 2004, rate-of-return carriers were eligible to receive long-term support (LTS). Since that date, LTS was merged into ICLS.

their serving telephone company central office. In addition, SNAS provides assistance to companies that have large increases in telecommunications plant in service. SVS provides additional assistance to rural carriers that make substantial investment after acquiring exchanges.

LSS provides assistance to LECs with study areas of 50,000 or fewer access lines to help defray their higher per-line switching costs. HCMS provides assistance for non-rural carriers based on their forward-looking costs of providing supported services as determined by the Commission's cost model. The IAS mechanism provides support to price-cap carriers to replace the implicit support previously collected through interstate access charges. The ICLS mechanism converts support implicit in the access rate structure of rate-of-return carriers to explicit and portable support. ICLS recovers any shortfall between the allowed common line revenues of rate of return carriers and their subscriber line charge revenues. As noted above, LTS was merged into ICLS as of July 1, 2004.

Table 19.3 shows HCLS, LTS, LSS, HCMS, IAS, ICLS, SNAS, and SVS payments from 1986 to 2008. Table 19.4 shows payments by state for 2007 and 2008.

Table 19.5 shows high-cost support payments to incumbent LECs and competitive eligible telecommunications carriers (CETCs) from 1996 to 2008. Chart 19.4 shows the percent of high-cost support received by CETCs. Table 19.6 shows high-cost support payments by state for 2008 to ILECs and CETCs and also to rural and non-rural carriers.

### **3. Low-Income Support: Lifeline and Link-Up**

The Lifeline program promotes increased telephone subscribership by providing low-income households with discounts on the monthly cost of telephone service. The Link-Up America program increases telephone subscribership by helping low-income households pay the initial costs of commencing telephone service.

The Lifeline program was created in 1984, and the Link-Up program was created in 1987. For both of these programs, the rules were later modified to make the distribution of low-income support competitively and technologically neutral by allowing all eligible telecommunications carriers, including wireless carriers, to receive support for providing Lifeline and Link-Up service. In June 2000, the Commission further expanded the Lifeline and Link-Up programs to address the needs of households on tribal lands.<sup>5</sup>

Eligibility requirements for Lifeline and Link-Up vary from state to state. In a state that has its own Lifeline program, the state may create its own eligibility requirements for the federal Lifeline program. Those criteria must be based solely on income or factors directly related to income. In addition, a state commission must ensure that its qualification criteria are reasonably designed to reach eligible residents of tribal lands within the state. In those states that do not have their own Lifeline program, known as federal default states, Lifeline eligibility requirements are set by the FCC. In federal default states, households must certify that they participate in at least one of the following seven federal programs: Medicaid, food stamps, Supplemental Security Income (SSI), federal public housing assistance, the Low-Income Home

---

<sup>5</sup> *Federal-State Joint Board on Universal Service; Promoting Deployment and Subscribership in Unserved and Underserved Areas, Including Tribal and Insular Areas*, Twelfth Report and Order, and Further Notice of Proposed Rulemaking, CC Docket No. 96-45, FCC 00-208, 15 FCC Rcd 12,208 (2000).

Energy Assistance Program (LIHEAP), the National School Lunch Program's free lunch program, or Temporary Assistance to Needy Families. By June 2005, consumers may also be able to qualify if their income is at or below 135% of the federal poverty guidelines.

Eligible consumers living on tribal lands can receive federal Lifeline support if they (a) meet their state's Lifeline eligibility requirements; (b) certify that they are enrolled in one of the seven federal programs listed above; or (c) participate in one of the following federal assistance programs: Bureau of Indian Affairs (BIA) general assistance program, tribally administered Temporary Assistance for Needy Families (TANF), or Head Start (meeting the income-qualifying standard).

Under the Commission's rules, there are four tiers of federal Lifeline support.<sup>6</sup> The first tier represents a monthly waiver of the federal subscriber line charge, which ranges between \$3.50 and \$6.50, varying by state and the carrier providing service. Second-tier support is an additional \$1.75 per-month reduction in the basic local rate. All Lifeline subscribers receive at least the first two tiers of federal support. The third tier of federal support is based on the amount of additional support mandated by the relevant state or otherwise provided by carriers. Federal support is available to match one-half of the tier-three support provided, up to a maximum of \$1.75 in federal support. Eligible subscribers living on tribal lands also qualify to receive a fourth tier of Lifeline support. Tier-four support provides up to an additional \$25 per month although all subscribers on tribal lands must pay at least \$1 per month.

The Commission's Link-Up program provides qualified low-income individuals with a federally financed 50% discount on initial connection charges up to \$30. Link-Up beneficiaries also may choose to schedule deferred payments of up to \$200 over a one-year period, with the customary interest charges paid through federal support. Eligible subscribers living on tribal lands may receive an additional discount of up to \$70 to cover 100% of the charges between \$60 and \$130.

Table 19.7 shows the minimum, maximum and average monthly Lifeline support as of March 31, 2008, by state. The table contains both federal and state support, and indicates the additional contribution from the federal program to reduce local rates where states have authorized statewide or carrier specific intrastate local rate reductions.

Table 19.8 contains historical Lifeline subscriber and Link-Up beneficiary data for 1987 through 2008. Table 19.9 present tribal and non-tribal lifeline subscriber and Link-Up beneficiary data by state for 2007 and 2008.

Table 19.10 and Chart 19.5 contain annual historical low-income support payments for the years 1988 through 2008. Table 19.11 shows low-income support payments by state or jurisdiction for 2007 and 2008. Table 19.12 shows low-income support payments to ILECs and CETCs from 1996 through 2008. Chart 19.6 shows the percent of low-income support received by CETCs.

---

<sup>6</sup> In addition, the Lifeline program compensates eligible telecommunication carriers for toll limitation service (TLS).

#### **4. Schools and Libraries**

The schools and libraries support mechanism also known as the “E Rate” enables schools and libraries to obtain eligible services at discounted rates. Eligible schools and libraries receive telecommunications services, Internet access, and internal connections at discounts that range from 20 percent to 90 percent. The level of the discount is generally based on the percentage of students eligible for the national school lunch program, or in the case of libraries, the percentage of students eligible for the national school lunch program in the school district where the library is located. In addition, schools and libraries located in rural areas receive an additional discount.

Table 19.13 shows funding commitments and disbursements to schools and libraries by funding year since 1998. The commitments and disbursements are shown by the type of service funded (internal connections, Internet access, and telecommunications). Chart 19.7 graphically shows the total schools and libraries mechanism’s funding commitments and disbursements. Table 19.14 shows, on a state-by-state basis, funding commitments to schools and libraries for the July 1, 2006 through June 30, 2007 Funding Year.

#### **5. Rural Health Care**

The Rural Health Care support mechanism enables health care providers in rural areas to pay no more than their urban counterparts for similar telecommunications services necessary for the provision of health care. Eligible rural health care providers can also receive a 25% discount off the monthly cost of Internet access reasonably related to the health care needs of the facility. Additionally, rural health care providers in *entirely rural* states are eligible to receive a 50% discount off the monthly cost of advanced telecommunications and information services reasonably related to the health care needs of the facility. Further, mobile rural health care providers utilizing satellite service can receive support for the difference between the rate for the satellite service and the rate for an urban wireline service with a similar bandwidth.

Table 19.15 and Chart 19.8 show rural health care fund disbursements by service speed since 1998. Table 19.16 shows rural health care fund disbursements by service speed and on a state-by-state basis for the funding period July 1, 2006 through June 30, 2007.

#### **6. Contributions to the Universal Service Fund**

Carriers contribute to universal service support mechanisms based on interstate and international end-user revenues. Since November 1999, all contributions to the USF are based on interstate end-user revenues. Table 19.17 shows interstate and intrastate contribution rates since the first quarter of 1998. Table 19.18 shows changes in the shares of contributions over time by type of service provider. Shares have changed because of differential pricing, growth trends, mergers, the removal of aDSL from the contribution base and wireless carriers now reporting greater shares of interstate revenue.

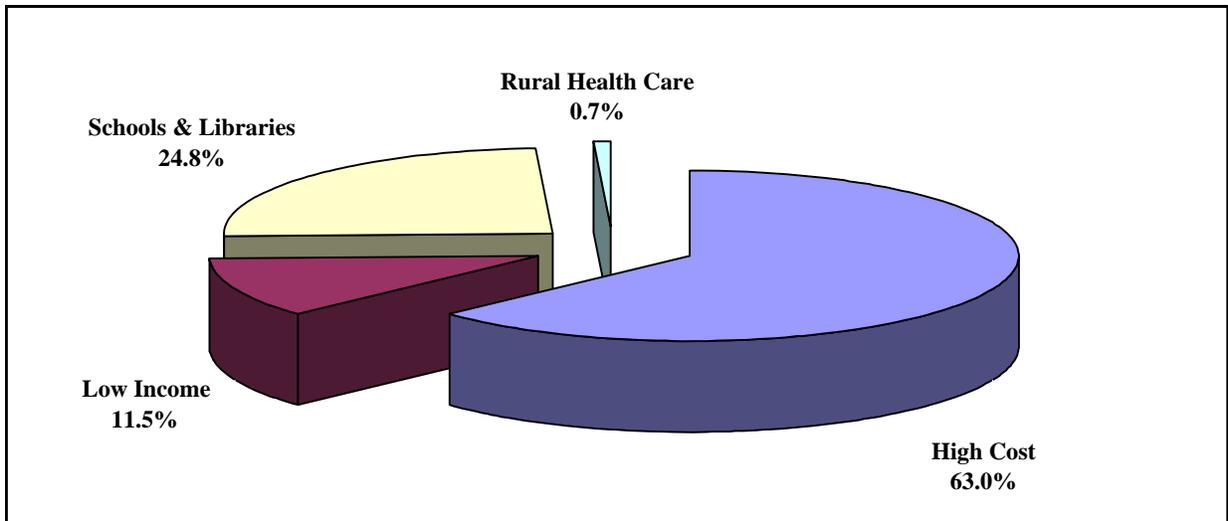
**Table 19.1**  
**Universal Service Support Mechanisms: 2007 & 2008**  
(Dollars in Millions)

Mechanism	2007		2008	
	Disbursements	Percent of Total	Disbursements	Percent of Total
<b>High-Cost Support</b>	<b>\$4,287</b>	<b>61.6 %</b>	<b>\$4,478</b>	<b>63.0 %</b>
High-Cost Loop Support	1,402	20.2	1,457	20.5
Safety Net Additive Support	38	0.6	48	0.7
Safety-Valve	3	0.0	2	0.0
High-Cost Model Support	346	5.0	351	4.9
Long Term Support	0	0.0	0	0.0
Interstate Common Line Support	1,392	20.0	1,621	22.8
Interstate Access Support	645	9.3	585	8.2
Local Switching Support	460	6.6	416	5.9
<b>Low-Income Support</b>	<b>823</b>	<b>11.8</b>	<b>819</b>	<b>11.5</b>
<b>School and Libraries</b>	<b>1,808</b>	<b>26.0</b>	<b>1,760</b>	<b>24.8</b>
<b>Rural Health Care</b>	<b>37</b>	<b>0.5</b>	<b>49</b>	<b>0.7</b>
<b>All Universal Service Support</b>	<b>\$6,955</b>	<b>100.0 %</b>	<b>\$7,106</b>	<b>100.0 %</b>

Notes: Figures may not add due to rounding. The figures used in this table are for the calendar year and include disbursements that were committed over several years but paid out in the respective calendar year (2007 or 2008). In Sections 4 and 5, figures for the Schools and Libraries program and the Rural Health Care program are reported based on fiscal year rather than calendar year.

Source: Universal Service Administration Company (USAC).

**Chart 19.1**  
**Distribution of Universal Service Payments: 2008**



**Table 19.2**  
**Universal Service Support Received by Service Provider Type: 2008**  
(Dollars in Thousands)

	High-Cost	Low Income	Rural Health Care	Schools and Libraries <sup>6</sup>	Total	Percent of Total
Incumbent Local Exchange Carriers	\$3,093,299	\$676,021	\$7,266	\$662,445	\$4,439,031	62.4 %
Non-Traditional Providers <sup>1</sup>	\$0	\$0	\$1,416	\$301,003	302,419	4.3
Wireless Providers <sup>2</sup>	\$1,361,321	\$143,274	\$2,629	\$146,312	1,653,537	23.2
Competitive Local Exchange Carriers <sup>3</sup>	\$23,166	\$0	\$5,129	\$424,397	452,692	6.4
Internet Service Providers	\$0	\$0	\$541	\$107,240	107,781	1.5
Long Distance Providers <sup>4</sup>	\$0	\$0	\$29,972	\$91,802	121,774	1.7
Other Providers <sup>5</sup>	\$0	\$0	\$2,505	\$35,264	37,769	0.5
<b>Total</b>	<b>\$4,477,786</b>	<b>\$819,295</b>	<b>\$49,458</b>	<b>\$1,768,464</b>	<b>\$7,115,002</b>	<b>100.0 %</b>

<sup>1</sup> Non-traditional providers provide eligible software, hardware, and network devices.

<sup>2</sup> Wireless providers include cellular, PCS, SMR, wireless data and other mobile providers. All CETC disbursement from Low-Income are assigned to wireless providers.

<sup>3</sup> Competitive local exchange carriers include competitive access providers, local resale, other local and shared tenant service providers. All CETC disbursement from Low-Income are assigned to wireless providers.

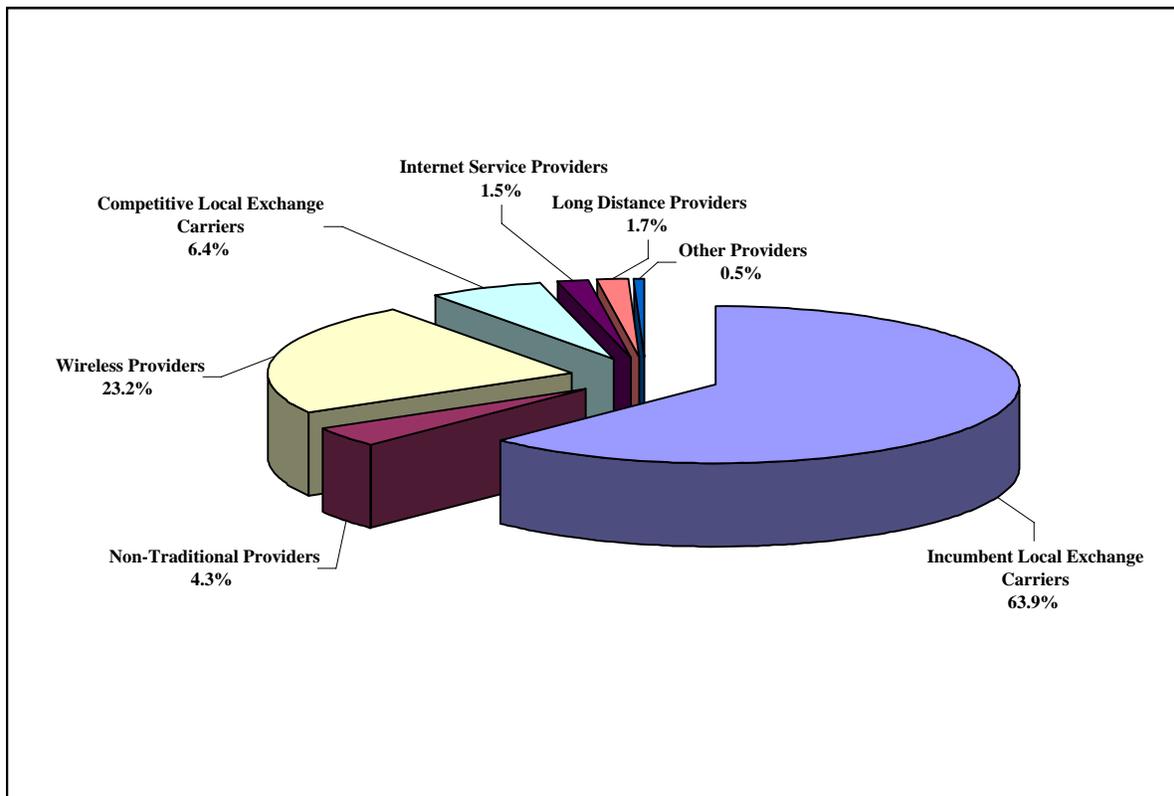
<sup>4</sup> Long distance providers include interexchange, operator service, toll resale, pre-paid card and other toll providers.

<sup>5</sup> Other providers' services include paging and messaging, payphone service provider, A38private service and satellite service.

<sup>6</sup> Schools and Libraries figure in Table 19.1 and 19.2 are slightly different. The figure in 19.1 is net authorizations (net of returned funds) and the figure in 19.2 is gross disbursements.

Source: Compiled from data provided to the FCC by Universal Service Administrative Company (USAC).

**Chart 19.2**  
**Universal Service Support Received by Service Provider Type: 2008**



**Table 19.3**  
**High-Cost Support Fund Payment History**  
(In Millions of Dollars)

Year	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	High-Cost Model Support	Long-Term Support*	Interstate Common Line Support	Interstate Access Support	Local Switching Support	Total Support
1986	\$56	-	-	-	-	-	-	-	\$56
1987	126	-	-	-	-	-	-	-	126
1988	183	-	-	-	-	-	-	-	183
1989	265	-	-	-	\$219	-	-	-	483
1990	339	-	-	-	263	-	-	-	602
1991	485	-	-	-	272	-	-	-	757
1992	609	-	-	-	306	-	-	-	915
1993	705	-	-	-	323	-	-	-	1,028
1994	725	-	-	-	347	-	-	-	1,072
1995	750	-	-	-	382	-	-	-	1,132
1996	763	-	-	-	426	-	-	-	1,188
1997	794	-	-	-	470	-	-	-	1,263
1998	827	-	-	-	473	-	-	\$390	1,690
1999	864	-	-	-	473	-	-	380	1,718
2000	874	-	-	\$219	478	-	\$279	385	2,235
2001	927	-	-	206	492	-	577	390	2,592
2002	1,045	-	-	233	493	\$173	615	376	2,935
2003	1,085	\$9	\$0	234	504	415	622	396	3,265
2004	1,137	12	0	273	275	716	642	414	3,468
2005	1,219	15	4	292	0	1,149	691	426	3,796
2006	1,309	29	1	358	4	1,299	681	428	4,110
2007	1,402	38	3	346	0	1,419	645	435	4,290
2008	1,457	48	2	351	0	1,621	585	416	4,478

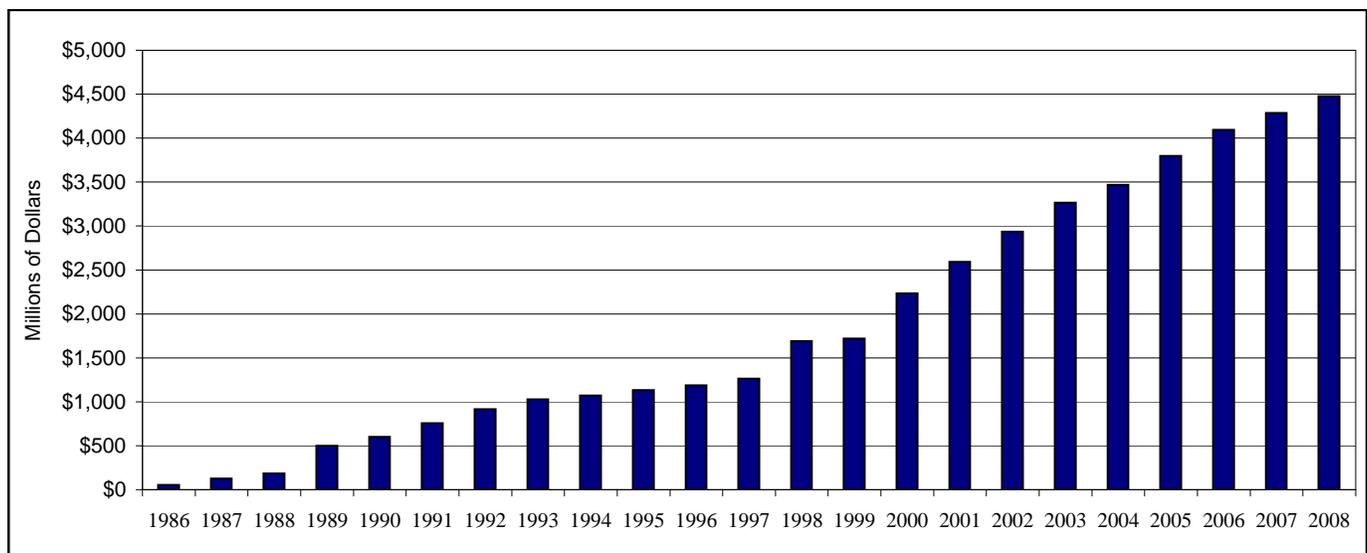
Note: Detail may not appear to add to totals due to rounding.

- Support mechanism did not exist in that year.

\* Long-Term Support was merged into Interstate Common Line Support in July 2004. Values in subsequent years are adjustments to payments made in previous years.

Sources: National Exchange Carrier Association (1986-1997),  
Universal Service Administrative Company (1998-2008).

**Chart 19.3**  
**Total High-Cost Support Fund Payments**



**Table 19.4**  
**High-Cost Support Payments by State: 2007**  
(In Thousands of Dollars)

	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	High-Cost Model Support	Long-Term Loop Support	Interstate Common Line Support	Interstate Access Support	Local Switching Support	Total Support
Alabama	\$19,813	\$444	\$0	\$44,671	\$0	\$20,475	\$20,269	\$5,997	\$111,668
Alaska	69,647	821	0	0	0	73,029	0	16,627	160,123
American Samoa	-2	0	0	0	0	2,196	0	961	3,155
Arizona	28,894	366	0	0	0	12,734	19,899	10,466	72,358
Arkansas	67,830	447	0	0	0	48,783	165	8,648	125,874
California	34,513	264	0	0	0	22,590	40,628	4,930	102,924
Colorado	36,580	128	0	0	1	21,354	18,641	4,768	81,471
Connecticut	0	0	0	0	0	0	531	0	531
Delaware	0	0	0	0	0	0	245	0	245
District of Columbia	0	0	0	0	0	0	0	0	0
Florida	10,719	0	0	0	0	11,035	59,948	3,822	85,525
Georgia	35,824	895	0	0	0	43,559	23,574	12,265	116,117
Guam	1,440	0	0	0	0	10,854	0	0	12,294
Hawaii	30,201	0	0	0	0	17,840	2,561	2,294	52,896
Idaho	21,210	675	0	0	0	10,802	15,467	7,000	55,154
Illinois	15,429	703	0	0	0	25,106	10,999	10,277	62,515
Indiana	17,983	761	0	0	0	20,543	22,851	9,381	71,520
Iowa	36,210	4,109	15	0	0	45,064	8,077	27,955	121,429
Kansas	126,593	3,338	0	0	0	61,945	6,111	16,945	214,932
Kentucky	29,938	632	0	16,827	0	26,659	17,392	6,102	97,550
Louisiana	97,899	1,200	0	0	0	40,559	13,412	6,958	160,028
Maine	8,287	109	0	2,117	0	14,420	95	8,606	33,634
Maryland	252	91	0	0	0	890	2,492	637	4,362
Massachusetts	-1	13	0	0	0	234	1,660	553	2,460
Michigan	29,077	178	0	0	0	23,581	674	11,345	64,855
Minnesota	49,390	3,346	23	0	0	52,099	3,897	21,362	130,116
Mississippi	34,538	633	0	197,320	0	18,441	24,210	5,086	280,229
Missouri	46,400	1,391	0	0	0	33,734	9,462	7,126	98,112
Montana	26,247	214	0	20,580	0	22,231	864	7,108	77,243
Nebraska	33,029	1,107	0	11,094	0	31,422	9,268	19,286	105,206
Nevada	6,306	277	0	0	0	5,711	10,376	6,372	29,042
New Hampshire	275	32	0	0	0	2,738	1,835	3,751	8,631
New Jersey	0	0	0	0	0	237	270	629	1,136
New Mexico	29,496	184	0	0	0	18,540	10,642	10,585	69,448
New York	6,415	1,104	0	0	0	12,174	18,234	13,868	51,795
North Carolina	12,529	0	0	0	0	35,814	29,047	6,043	83,433
North Dakota	27,579	1,684	95	0	0	36,519	962	16,006	82,845
Northern Mariana Islands	0	0	0	0	0	0	444	1,082	1,526
Ohio	9,664	1,624	0	0	0	12,662	12,450	4,187	40,587
Oklahoma	61,814	1,822	0	0	0	47,207	2,361	17,060	130,265
Oregon	28,239	417	0	0	0	22,323	20,134	8,986	80,098
Pennsylvania	2,004	69	0	0	0	30,702	21,718	5,031	59,524
Puerto Rico	0	0	0	0	0	160,755	0	0	160,755
Rhode Island	0	0	0	0	0	0	31	0	31
South Carolina	23,041	1,751	0	0	0	39,685	11,175	5,161	80,813
South Dakota	40,116	2,430	116	2,445	0	34,498	31	14,796	94,432
Tennessee	12,294	504	0	0	0	23,145	9,793	6,396	52,131
Texas	114,466	805	0	0	0	67,840	44,274	19,058	246,443
Utah	6,298	111	159	0	0	8,748	2,535	4,632	22,482
Vermont	6,950	451	0	9,881	0	7,427	2,400	3,943	31,053
Virgin Islands	11,136	0	0	0	0	12,127	0	0	23,263
Virginia	3,584	324	0	0	0	8,099	61,719	5,360	79,087
Washington	30,202	51	0	0	0	31,880	25,637	7,377	95,147
West Virginia	9,863	121	0	27,594	0	2,662	19,473	3,565	63,279
Wisconsin	36,896	2,519	2,562	0	0	72,218	256	27,241	141,691
Wyoming	15,373	318	0	13,734	0	13,542	5,802	7,457	56,225
<b>Total</b>	<b>\$1,402,482</b>	<b>\$38,462</b>	<b>\$2,968</b>	<b>\$346,264</b>	<b>\$1</b>	<b>\$1,419,433</b>	<b>\$644,991</b>	<b>\$435,088</b>	<b>\$4,289,688</b>

Note : The reason some values are negative is that support amounts include prior period adjustments.

Source: The data are derived from individual company payments reported on the USAC web site.

**Table 19.4 - Continued**  
**High-Cost Support Payments by State: 2008**  
(In Thousands of Dollars)

	High-Cost Loop Support	Safety Net Additive Support	Safety Valve Support	High-Cost Model Support	Long-Term Loop Support	Interstate Common Line Support	Interstate Access Support	Local Switching Support	Total Support
Alabama	\$19,809	\$185	\$0	\$43,355	\$0	\$19,646	\$19,093	\$5,715	\$107,802
Alaska	70,769	634	0	0	0	75,219	0	15,561	162,184
American Samoa	0	0	0	0	0	2,450	0	1,536	3,986
Arizona	29,070	511	0	0	0	13,100	17,893	9,282	69,856
Arkansas	80,985	369	0	0	0	60,956	137	11,072	153,518
California	35,386	344	0	0	0	23,991	40,543	4,673	104,936
Colorado	35,109	154	0	0	0	23,022	17,669	4,752	80,706
Connecticut	0	0	0	0	0	-185	477	-112	180
Delaware	0	0	0	0	0	0	213	0	213
District of Columbia	0	0	0	0	0	0	0	0	0
Florida	10,182	0	0	0	0	9,847	53,554	3,710	77,293
Georgia	36,629	1,191	0	0	0	59,457	22,865	14,022	134,164
Guam	1,471	0	0	0	0	14,758	0	0	16,229
Hawaii	37,545	0	0	0	0	20,022	2,081	2,211	61,859
Idaho	20,780	422	0	0	0	11,933	14,397	6,365	53,898
Illinois	20,130	617	0	0	0	27,869	11,077	11,322	71,016
Indiana	19,135	895	0	0	0	25,292	19,455	9,218	73,994
Iowa	38,367	3,352	9	0	0	55,293	11,697	24,424	133,141
Kansas	128,865	2,681	550	0	0	68,210	6,450	14,499	221,255
Kentucky	36,123	1,492	0	16,146	0	28,516	15,903	5,908	104,088
Louisiana	95,217	1,940	0	0	0	43,526	13,680	5,972	160,335
Maine	6,822	472	0	2,185	0	15,409	54	7,508	32,450
Maryland	242	0	0	0	0	885	2,346	599	4,072
Massachusetts	11	42	0	0	0	174	1,502	635	2,365
Michigan	26,842	178	0	0	0	25,597	720	10,660	63,996
Minnesota	47,964	2,627	14	0	0	60,625	3,821	18,913	133,964
Mississippi	34,813	991	0	203,920	0	21,148	23,319	4,935	289,126
Missouri	53,128	1,547	0	0	0	38,960	9,850	7,046	110,530
Montana	27,942	213	0	18,993	0	24,325	827	7,017	79,317
Nebraska	36,373	753	0	10,997	0	35,624	8,631	21,311	113,689
Nevada	5,079	0	0	0	0	6,686	10,088	5,970	27,823
New Hampshire	228	33	0	0	0	3,543	848	4,011	8,662
New Jersey	0	0	0	0	0	333	253	432	1,018
New Mexico	28,578	192	0	0	0	16,905	12,335	7,214	65,224
New York	5,461	2,023	0	0	0	12,836	13,820	13,514	47,654
North Carolina	12,359	0	0	0	0	34,770	26,389	4,751	78,269
North Dakota	30,686	5,349	74	0	0	40,760	822	15,814	93,505
Northern Mariana Islands	0	0	0	0	0	0	248	473	722
Ohio	8,201	641	0	0	0	16,124	11,112	3,896	39,973
Oklahoma	67,559	6,368	0	0	0	52,750	1,945	16,314	144,936
Oregon	29,811	524	0	0	0	25,393	18,288	9,940	83,955
Pennsylvania	1,826	44	0	0	0	28,216	20,158	4,092	54,335
Puerto Rico	0	0	0	0	0	215,609	0	0	215,609
Rhode Island	0	0	0	0	0	0	31	0	31
South Carolina	30,392	1,408	0	0	0	45,187	10,077	5,408	92,472
South Dakota	42,607	2,288	104	2,381	0	35,343	111	12,413	95,246
Tennessee	13,383	2,136	0	0	0	24,825	9,353	6,124	55,821
Texas	116,007	675	0	0	0	77,760	46,041	19,200	259,685
Utah	5,186	41	81	0	0	8,997	2,358	3,785	20,447
Vermont	5,581	460	0	9,606	0	8,530	1,357	3,550	29,084
Virgin Islands	8,994	0	0	0	0	12,135	0	0	21,129
Virginia	3,024	259	0	0	0	9,277	56,999	5,029	74,587
Washington	31,373	95	0	0	0	39,257	-1,811	8,128	77,042
West Virginia	8,650	81	0	29,961	0	3,304	19,997	3,331	65,325
Wisconsin	34,873	3,115	1,011	0	0	81,715	181	25,463	146,357
Wyoming	17,001	186	0	13,026	148	14,671	5,363	8,319	58,714
<b>Total</b>	<b>\$1,456,567</b>	<b>\$47,528</b>	<b>\$1,842</b>	<b>\$350,571</b>	<b>\$148</b>	<b>\$1,620,591</b>	<b>\$584,614</b>	<b>\$415,924</b>	<b>\$4,477,786</b>

Note : The reason some values are negative is that support amounts include prior period adjustments.

Source: The data are derived from individual company payments reported on the USAC web site.

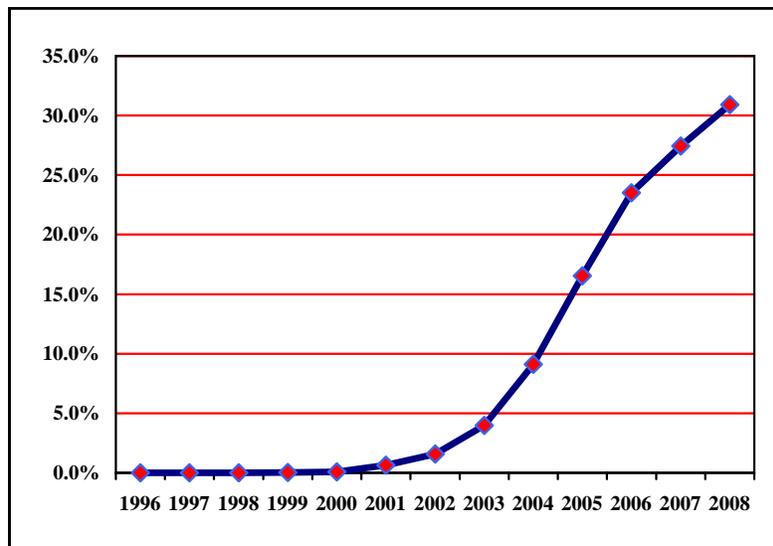
**Table 19.5**  
**High-Cost Support Received by Incumbent LECs and CETCs**  
**(In Millions of Dollars)**

	<b>ILECs</b>	<b>CETCs</b>	<b>Total</b>	<b>Percent CETCs</b>
1996	\$1,188	\$0	\$1,188	0.0 %
1997	1,263	0	1,263	0.0
1998	1,690	0	1,690	0.0
1999	1,717	1	1,718	0.0
2000	2,233	1	2,235	0.1
2001	2,575	17	2,592	0.7
2002	2,889	46	2,935	1.6
2003	3,136	130	3,265	4.0
2004	3,153	316	3,468	9.1
2005	3,169	628	3,796	16.5
2006	3,143	967	4,110	23.5
2007	3,112	1,177	4,290	27.4
2008	3,093	1,384	4,478	30.9

Notes: ILECs is an abbreviation for incumbent local exchange carriers. CETCs is an abbreviation for competitive eligible telecommunications carriers. CETCs include both wireless and wireline carriers.

Sources: National Exchange Carrier Association (1996-1997).  
 Universal Service Administrative Company (1998-2008).

**Chart 19.4**  
**Percent of High-Cost Support Received by CETCs**



**Table 19.6**  
**High-Cost Support by Type of Carriers: 2008**  
(In Thousands of Dollars)

	ILECs <sup>1</sup>	CETCs <sup>2</sup>	Percent CETCs <sup>2</sup>	Rural Carriers	Non-Rural Carriers	Percent Non-Rural Carriers	Total
Alabama	\$89,052	\$18,750	17.4 %	\$43,321	\$64,481	59.8 %	\$107,802
Alaska	87,645	74,539	46.0	119,195	42,989	26.5	162,184
American Samoa	673	3,313	83.1	1,858	2,128	53.4	3,986
Arizona	57,388	12,468	17.8	54,032	15,824	22.7	69,856
Arkansas	91,833	61,686	40.2	129,824	23,694	15.4	153,518
California	104,652	284	0.3	65,873	39,064	37.2	104,936
Colorado	70,409	10,297	12.8	59,421	21,285	26.4	80,706
Connecticut	180	0	0.0	-298	477	266.5	180
Delaware	213	0	0.0	0	213	100.0	213
District of Columbia	0	0	NA	0	0	NA	0
Florida	62,842	14,451	18.7	38,501	38,792	50.2	77,293
Georgia	110,709	23,455	17.5	102,209	31,954	23.8	134,164
Guam	7,121	9,108	56.1	7,870	8,359	51.5	16,229
Hawaii	28,207	33,653	54.4	48,383	13,476	21.8	61,859
Idaho	46,202	7,697	14.3	51,185	2,714	5.0	53,898
Illinois	58,367	12,649	17.8	57,449	13,567	19.1	71,016
Indiana	66,440	7,553	10.2	54,636	19,358	26.2	73,994
Iowa	68,151	64,990	48.8	99,597	33,544	25.2	133,141
Kansas	135,791	85,463	38.6	193,818	27,437	12.4	221,255
Kentucky	75,277	28,812	27.7	64,302	39,786	38.2	104,088
Louisiana	94,023	66,312	41.4	129,232	31,103	19.4	160,335
Maine	21,209	11,241	34.6	24,927	7,523	23.2	32,450
Maryland	4,072	0	0.0	1,726	2,346	57.6	4,072
Massachusetts	2,365	0	0.0	863	1,502	63.5	2,365
Michigan	41,667	22,330	34.9	54,271	9,725	15.2	63,996
Minnesota	83,982	49,982	37.3	110,440	23,524	17.6	133,964
Mississippi	127,609	161,517	55.9	52,753	236,373	81.8	289,126
Missouri	92,141	18,390	16.6	99,512	11,019	10.0	110,530
Montana	66,366	12,951	16.3	56,751	22,566	28.5	79,317
Nebraska	54,168	59,520	52.4	76,634	37,055	32.6	113,689
Nevada	20,979	6,844	24.6	18,279	9,544	34.3	27,823
New Hampshire	8,380	281	3.2	7,749	913	10.5	8,662
New Jersey	1,018	0	0.0	1,018	0	0.0	1,018
New Mexico	49,996	15,228	23.3	53,560	11,664	17.9	65,224
New York	44,719	2,936	6.2	38,960	8,694	18.2	47,654
North Carolina	68,314	9,954	12.7	53,917	24,352	31.1	78,269
North Dakota	47,036	46,469	49.7	72,337	21,168	22.6	93,505
Northern Mariana Islands	276	446	61.8	552	170	23.5	722
Ohio	39,973	0	0.0	33,869	6,104	15.3	39,973
Oklahoma	112,897	32,039	22.1	131,259	13,677	9.4	144,936
Oregon	59,804	24,151	28.8	60,533	23,422	27.9	83,955
Pennsylvania	52,805	1,531	2.8	41,703	12,632	23.2	54,335
Puerto Rico	59,557	156,051	72.4	0	215,609	100.0	215,609
Rhode Island	31	0	0.0	0	31	100.0	31
South Carolina	85,924	6,549	7.1	81,005	11,467	12.4	92,472
South Dakota	58,389	36,857	38.7	78,923	16,323	17.1	95,246
Tennessee	54,716	1,105	2.0	48,275	7,546	13.5	55,821
Texas	223,234	36,451	14.0	217,771	41,913	16.1	259,685
Utah	20,083	364	1.8	19,075	1,372	6.7	20,447
Vermont	22,713	6,372	21.9	16,349	12,736	43.8	29,084
Virgin Islands	19,737	1,392	6.6	19,945	1,184	5.6	21,129
Virginia	59,484	15,103	20.2	26,715	47,872	64.2	74,587
Washington	64,379	12,663	16.4	65,661	11,381	14.8	77,042
West Virginia	48,114	17,210	26.3	21,995	43,329	66.3	65,325
Wisconsin	82,563	63,794	43.6	108,342	38,015	26.0	146,357
Wyoming	39,426	19,288	32.9	36,352	22,362	38.1	58,714
<b>Total</b>	<b>\$3,093,299</b>	<b>\$1,384,487</b>	<b>30.9 %</b>	<b>\$3,052,428</b>	<b>\$1,425,357</b>	<b>31.8</b>	<b>\$4,477,786</b>

Figures may not add up due to rounding.

NA - Not Applicable

<sup>1</sup> ILECs is an abbreviation for incumbent local exchange carriers.

<sup>2</sup> CETCs is an abbreviation for competitive eligible telecommunications carriers. CETCs include both wireline and wireless carriers.

Source: Universal Service Administrative Company.

**Table 19.7**  
**Lifeline Monthly Support by State or Jurisdiction**  
**(As of March 31, 2008)**

	Basic Federal Support <sup>1</sup>			Additional State Support <sup>2</sup>			Federal Match			Total Federal Support			Total Federal and State Support <sup>2</sup>		
	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.	Min.	Max.	Avg.
Alabama	\$8.25	\$8.25	\$8.25	\$1.18	\$3.50	\$3.39	\$0.59	\$1.75	\$1.70	\$8.84	\$10.00	\$9.95	\$10.02	\$13.50	\$13.34
Alaska	8.25	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	10.00	10.00	10.00	13.50	13.50	13.50
American Samoa	8.25	8.25	8.25	0.00	0.00	0.00	0.00	0.00	0.00	8.25	8.25	8.25	8.25	8.25	8.25
Arizona	8.05	8.25	8.20	0.00	3.50	2.56	0.00	1.75	1.28	8.05	10.00	9.48	8.05	13.50	12.04
Arkansas	5.25	8.25	7.45	0.00	3.50	1.69	0.00	1.75	0.84	5.25	10.00	8.29	5.25	13.50	9.98
California	3.98	8.25	6.62	2.00	3.50	2.56	1.00	1.75	1.28	4.98	10.00	7.90	6.98	13.50	10.45
Colorado	8.25	8.25	8.25	0.00	3.50	3.48	0.00	1.75	1.74	8.25	10.00	9.99	8.25	13.50	13.46
Connecticut	7.49	7.49	7.49	1.18	1.18	1.18	0.59	0.59	0.59	8.08	8.08	8.08	9.26	9.26	9.26
Delaware	8.20	8.20	8.20	0.00	0.00	0.00	0.00	0.00	0.00	8.20	8.20	8.20	8.20	8.20	8.20
District of Columbia	5.61	5.61	5.61	3.50	3.50	3.50	1.75	1.75	1.75	7.36	7.36	7.36	10.86	10.86	10.86
Florida	8.06	8.25	8.25	0.00	3.50	3.50	0.00	1.75	1.75	8.06	10.00	9.99	8.06	13.50	13.49
Georgia	6.50	8.25	8.25	0.00	3.50	3.36	0.00	1.75	1.68	6.50	10.00	9.93	6.50	13.50	13.30
Guam	8.25	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	10.00	10.00	10.00	13.50	13.50	13.50
Hawaii	8.25	8.25	8.25	0.00	0.00	0.00	0.00	0.00	0.00	8.25	8.25	8.25	8.25	8.25	8.25
Idaho	6.50	8.25	8.17	0.00	3.50	3.44	0.00	1.75	1.72	6.50	10.00	9.89	6.50	13.50	13.34
Illinois	6.24	8.25	6.57	0.00	2.50	0.11	0.00	1.25	0.05	6.24	9.50	6.62	6.24	12.00	6.73
Indiana	5.25	8.25	7.52	0.00	0.00	0.00	0.00	0.00	0.00	5.25	8.25	7.52	5.25	8.25	7.52
Iowa	6.55	8.25	7.11	0.00	3.50	0.32	0.00	1.75	0.16	6.55	10.00	7.27	6.55	13.50	7.58
Kansas	6.50	8.25	7.31	0.00	3.50	3.44	0.00	1.75	1.72	6.50	10.00	9.03	6.50	13.50	12.47
Kentucky	7.00	8.25	8.17	0.00	3.50	2.80	0.00	1.75	1.40	7.00	10.00	9.57	7.00	13.50	12.37
Louisiana	8.25	8.25	8.25	0.00	3.50	0.41	0.00	1.75	0.21	8.25	10.00	8.46	8.25	13.50	8.87
Maine	8.15	8.25	8.17	0.00	3.50	3.47	0.00	1.75	1.73	8.15	10.00	9.91	8.15	13.50	13.37
Maryland	7.43	8.25	7.43	0.84	3.42	3.42	0.42	1.71	1.71	7.85	9.96	9.14	8.69	13.38	12.56
Massachusetts	8.15	8.25	8.15	3.50	3.50	3.50	1.75	1.75	1.75	9.90	10.00	9.90	13.40	13.50	13.40
Michigan	7.10	8.25	7.26	0.52	3.50	2.21	0.26	1.75	1.11	7.36	10.00	8.37	7.88	13.50	10.58
Minnesota	6.50	8.25	7.16	0.00	3.50	1.84	0.00	1.75	0.92	6.50	10.00	8.08	6.50	13.50	9.92
Mississippi	8.25	8.25	8.25	0.00	3.50	3.36	0.00	1.75	1.68	8.25	10.00	9.93	8.25	13.50	13.29
Missouri	6.50	8.25	7.34	0.00	3.50	3.45	0.00	1.75	1.72	6.50	10.00	9.06	6.50	13.50	12.51
Montana	8.25	8.25	8.25	0.00	3.50	2.85	0.00	1.75	1.43	8.25	10.00	9.68	8.25	13.50	12.53
Nebraska	6.06	8.25	7.03	0.00	3.50	3.39	0.00	1.75	1.70	6.06	10.00	8.72	6.06	13.50	12.12
Nevada	5.53	8.25	6.30	0.00	3.50	1.86	0.00	1.75	0.93	5.53	10.00	7.23	5.53	13.50	9.09
New Hampshire	8.14	8.25	8.16	0.00	0.00	0.00	0.00	0.00	0.00	8.14	8.25	8.16	8.14	8.25	8.16
New Jersey	7.07	8.25	8.03	0.00	3.50	3.48	0.00	1.75	1.74	7.07	10.00	9.77	7.07	13.50	13.25
New Mexico	8.25	8.25	8.25	0.00	3.50	3.08	0.00	1.75	1.54	8.25	10.00	9.79	8.25	13.50	12.87
New York	5.93	8.25	8.03	0.00	3.50	3.11	0.00	1.75	1.56	5.93	10.00	9.59	5.93	13.50	12.70
North Carolina	7.43	8.25	7.89	3.50	3.50	3.49	1.75	1.75	1.75	9.18	10.00	9.63	12.68	13.50	13.13
North Dakota	8.25	8.25	8.25	0.00	3.50	1.78	0.00	1.75	0.89	8.25	10.00	9.14	8.25	13.50	10.92
N. Marianna Islands	8.25	8.25	8.25	0.00	0.00	0.00	0.00	0.00	0.00	8.25	8.25	8.25	8.25	8.25	8.25
Ohio	7.00	8.25	7.30	0.00	3.50	3.49	0.00	1.75	1.75	7.00	10.00	9.05	7.00	13.50	12.54
Oklahoma	7.00	8.25	7.44	0.00	3.50	1.08	0.00	1.75	0.54	7.00	10.00	7.98	7.00	13.50	9.07
Oregon	8.13	8.25	8.25	0.00	3.50	3.47	0.00	1.75	1.74	8.13	10.00	9.99	8.13	13.50	13.46
Pennsylvania	5.25	8.25	7.74	0.00	2.50	0.98	0.00	1.25	0.49	5.25	9.50	8.23	5.25	12.00	9.20
Puerto Rico	8.25	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	10.00	10.00	10.00	13.50	13.50	13.50
Rhode Island	8.15	8.15	8.15	3.50	3.50	3.50	1.75	1.75	1.75	9.90	9.90	9.90	13.40	13.40	13.40
South Carolina	7.38	8.25	8.24	3.50	3.50	3.50	1.75	1.75	1.75	9.13	10.00	9.99	12.63	13.50	13.49
South Dakota	7.89	8.25	8.19	0.00	3.50	0.31	0.00	1.75	0.15	7.89	10.00	8.34	7.89	13.50	8.65
Tennessee	6.85	8.25	8.15	0.00	3.50	3.19	0.00	1.75	1.59	6.85	10.00	9.75	6.85	13.50	12.94
Texas	5.36	8.25	7.28	0.00	3.50	3.35	0.00	1.75	1.67	5.36	10.00	8.95	5.36	13.50	12.30
Utah	8.09	8.25	8.15	3.50	3.50	3.50	1.75	1.75	1.75	9.84	10.00	9.90	13.34	13.50	13.40
Vermont	8.15	8.25	8.17	3.50	3.50	3.50	1.75	1.75	1.75	9.90	10.00	9.92	13.40	13.50	13.42
Virgin Islands	8.25	8.25	8.25	3.50	3.50	3.50	1.75	1.75	1.75	10.00	10.00	10.00	13.50	13.50	13.50
Virginia	6.68	8.25	7.48	0.00	3.50	3.23	0.00	1.75	1.61	6.68	10.00	9.10	6.68	13.50	12.32
Washington	6.97	8.25	7.84	0.00	3.50	2.29	0.00	1.75	1.15	6.97	10.00	8.99	6.97	13.50	11.28
West Virginia	6.50	8.25	8.25	0.00	3.50	2.75	0.00	1.75	1.37	6.50	10.00	9.62	6.50	13.50	12.37
Wisconsin	6.81	8.25	7.33	0.00	3.50	1.21	0.00	1.75	0.61	6.81	10.00	7.94	6.81	13.50	9.15
Wyoming	8.25	8.25	8.25	0.00	3.50	3.45	0.00	1.75	1.73	8.25	10.00	9.98	8.25	13.50	13.43
Nationwide	\$3.98	\$8.25	\$7.30	\$0.00	\$3.50	\$2.69	\$0.00	\$1.75	\$1.34	\$3.98	\$10.00	\$8.64	\$3.98	\$13.50	\$11.33

Notes: This table reflects only non-tribal support. All averages are weighted averages.

<sup>1</sup> Basic federal support includes both Tier 1 and Tier 2 support. See text for definitions.

<sup>2</sup> Includes only state support that is matched by federal support.

Source: Universal Service Administrative Company.

**Table 19.8**  
**Lifeline Subscribers and Link-Up Beneficiaries**

Year	Lifeline			Link-Up		
	Non-Tribal	Tribal	Total	Non-Tribal	Tribal	Total
1987			1,063,443			7,953
1988			1,828,862			105,758
1989			2,115,288			206,656
1990			2,466,513			513,155
1991			2,984,290			639,645
1992			3,440,216			743,285
1993			3,971,937			737,362
1994			4,423,119			837,964
1995			4,914,056			823,679
1996			5,233,425			808,354
1997 <sup>1</sup>			5,110,537			NA
1998			5,380,726			2,195,417
1999			5,640,094			1,834,766
2000	5,871,619	18,692	5,890,311	1,689,867	2,038	1,691,905
2001	6,144,089	56,820	6,200,909	1,670,260	23,355	1,693,615
2002	6,518,367	112,191	6,630,558	1,656,768	29,901	1,686,669
2003	6,490,614	147,203	6,637,817	1,653,301	22,289	1,675,590
2004	6,792,695	176,390	6,969,085	1,669,888	41,034	1,710,922
2005	6,883,048	236,458	7,119,506	1,653,101	86,857	1,739,958
2006	6,648,267	289,249	6,937,516	1,560,348	99,179	1,659,527
2007	6,617,969	329,386	6,947,355	1,385,440	110,495	1,495,935
2008 <sup>2</sup>	6,500,374	353,274	6,853,648	1,505,833	116,905	1,622,738

NA - Not Available.

<sup>1</sup> Subscriber data were not collected in 1997. Lifeline subscribership data were estimated by USAC.

<sup>2</sup> The reported subscribers and beneficiaries represent USAC data for the time period January 2008 through December 2008, which include true-ups for Lifeline subscribers and Link-Up beneficiaries through March 2009.

Source: Universal Service Administrative Company.

**Table 19.9**  
**Lifeline Subscribers and Link-Up Beneficiaries by State or Jurisdiction: 2007**

	Lifeline			Link-Up		
	Non-Tribal	Tribal	Total	Non-Tribal	Tribal	Total
Alabama	45,714	15	45,729	34,849	0	34,849
Alaska	0	48,848	48,848	23	13,182	13,205
American Samoa	592	0	592	15	0	15
Arizona	31,143	48,955	80,098	3,547	8,955	12,502
Arkansas	28,476	4	28,480	5,435	0	5,435
California	2,778,807	465	2,779,272	590,563	1	590,564
Colorado	27,307	9	27,316	1,500	1	1,501
Connecticut	47,294	0	47,294	2,399	0	2,399
Delaware	2,280	0	2,280	279	0	279
District of Columbia	7,763	0	7,763	790	0	790
Florida	165,272	1	165,273	36,490	0	36,490
Georgia	76,610	0	76,610	17,815	0	17,815
Guam	2,259	0	2,259	1,100	0	1,100
Hawaii	4,914	0	4,914	206	0	206
Idaho	30,228	499	30,727	1,473	4	1,477
Illinois	110,330	0	110,330	54,105	0	54,105
Indiana	57,675	0	57,675	18,399	0	18,399
Iowa	65,499	1	65,500	5,017	0	5,017
Kansas	26,960	43	27,003	3,479	0	3,479
Kentucky	70,922	0	70,922	12,598	0	12,598
Louisiana	29,447	0	29,447	24,425	0	24,425
Maine	66,072	652	66,724	14,147	37	14,184
Maryland	5,133	0	5,133	1,627	0	1,627
Massachusetts	100,664	2	100,666	1,547	0	1,547
Michigan	132,351	303	132,654	47,895	27	47,922
Minnesota	71,718	1,620	73,338	6,359	375	6,734
Mississippi	40,306	19	40,325	19,191	0	19,191
Missouri	65,781	35	65,816	7,651	2	7,653
Montana	10,069	8,272	18,341	622	1,933	2,555
Nebraska	21,894	503	22,397	2,009	30	2,039
Nevada	34,611	215	34,826	4,840	17	4,857
New Hampshire	5,876	0	5,876	222	0	222
New Jersey	113,502	0	113,502	6,821	0	6,821
New Mexico	55,562	21,319	76,881	3,411	4,438	7,849
New York	323,603	16	323,619	1,856	0	1,856
North Carolina	120,363	8	120,371	5,673	0	5,673
North Dakota	16,169	6,751	22,920	2,212	1,775	3,987
Northern Mariana Islands	1,017	0	1,017	1,076	0	1,076
Ohio	287,047	0	287,047	55,511	0	55,511
Oklahoma	6,339	160,750	167,089	5,093	69,216	74,309
Oregon	46,367	269	46,636	7,611	11	7,622
Pennsylvania	152,658	0	152,658	43,620	0	43,620
Puerto Rico	136,395	0	136,395	26,106	0	26,106
Rhode Island	33,391	0	33,391	2,304	0	2,304
South Carolina	29,953	8	29,961	8,611	0	8,611
South Dakota	11,367	14,768	26,135	1,096	3,369	4,465
Tennessee	67,050	0	67,050	40,626	0	40,626
Texas	776,244	815	777,059	171,619	77	171,696
Utah	29,663	629	30,292	1,323	384	1,707
Vermont	25,506	0	25,506	1,413	0	1,413
Virgin Islands	520	0	520	2	0	2
Virginia	19,956	0	19,956	3,778	0	3,778
Washington	101,317	12,609	113,926	31,487	6,240	37,727
West Virginia	6,143	0	6,143	1,005	0	1,005
Wisconsin	88,207	671	88,878	42,129	411	42,540
Wyoming	5,663	312	5,975	440	10	450
Industry Totals	6,617,969	329,386	6,947,355	1,385,440	110,495	1,495,935

The reported subscribers and beneficiaries represent USAC data for the time period January 2007 through December 2007, which include true-ups for Lifeline subscribers and Link-Up beneficiaries through March 2008.

Source: Universal Service Administrative Company.

**Table 19.9 - Continued**  
**Lifeline Subscribers and Link-Up Beneficiaries by State or Jurisdiction: 2008**

	Lifeline			Link-Up		
	Non-Tribal	Tribal	Total	Non-Tribal	Tribal	Total
Alabama	76,594	17	76,611	61,547	0	61,547
Alaska	0	56,522	56,522	0	10,277	10,277
American Samoa	627	0	627	23	0	23
Arizona	28,918	48,356	77,274	4,331	8,579	12,910
Arkansas	29,715	4	29,719	7,997	0	7,997
California	2,309,971	467	2,310,438	545,078	1	545,079
Colorado	25,963	9	25,972	2,404	1	2,405
Connecticut	43,823	0	43,823	2,209	0	2,209
Delaware	1,984	0	1,984	185	0	185
District of Columbia	7,237	0	7,237	612	0	612
Florida	281,422	1	281,423	33,815	0	33,815
Georgia	100,202	0	100,202	54,903	0	54,903
Guam	2,401	0	2,401	953	0	953
Hawaii	4,390	0	4,390	175	0	175
Idaho	27,750	533	28,283	2,358	28	2,386
Illinois	108,635	0	108,635	45,136	0	45,136
Indiana	55,307	0	55,307	15,550	0	15,550
Iowa	58,639	2	58,641	5,688	0	5,688
Kansas	26,715	46	26,761	3,531	0	3,531
Kentucky	64,913	0	64,913	19,017	0	19,017
Louisiana	39,051	0	39,051	26,580	0	26,580
Maine	63,776	758	64,534	14,148	48	14,196
Maryland	5,821	0	5,821	2,117	0	2,117
Massachusetts	91,464	2	91,466	536	0	536
Michigan	116,409	301	116,710	32,120	30	32,150
Minnesota	72,861	2,495	75,356	9,900	208	10,108
Mississippi	58,327	19	58,346	45,597	0	45,597
Missouri	70,939	44	70,983	9,145	1	9,146
Montana	9,303	7,958	17,261	1,071	1,663	2,734
Nebraska	20,001	533	20,534	2,092	8	2,100
Nevada	30,109	238	30,347	4,417	58	4,475
New Hampshire	5,439	0	5,439	67	0	67
New Jersey	108,648	0	108,648	5,726	0	5,726
New Mexico	53,654	22,956	76,610	5,460	3,825	9,285
New York	309,760	15	309,775	2,062	0	2,062
North Carolina	127,373	6	127,379	20,395	0	20,395
North Dakota	15,392	5,372	20,764	1,643	514	2,157
Northern Mariana Islands	1,277	0	1,277	800	0	800
Ohio	279,260	0	279,260	49,409	0	49,409
Oklahoma	7,798	178,741	186,539	2,143	86,166	88,309
Oregon	45,326	267	45,593	8,005	20	8,025
Pennsylvania	144,490	0	144,490	36,627	0	36,627
Puerto Rico	187,864	0	187,864	32,289	0	32,289
Rhode Island	30,748	0	30,748	2,172	0	2,172
South Carolina	46,780	33	46,813	37,000	0	37,000
South Dakota	10,685	9,135	19,820	1,347	576	1,923
Tennessee	98,696	0	98,696	43,165	0	43,165
Texas	908,295	957	909,252	239,783	251	240,034
Utah	29,139	843	29,982	2,990	217	3,207
Vermont	25,816	0	25,816	1,102	0	1,102
Virgin Islands	534	0	534	9	0	9
Virginia	43,242	0	43,242	3,798	0	3,798
Washington	92,619	15,636	108,255	27,784	4,069	31,853
West Virginia	6,012	0	6,012	686	0	686
Wisconsin	83,032	716	83,748	27,741	349	28,090
Wyoming	5,228	292	5,520	395	16	411
Industry Totals	6,500,374	353,274	6,853,648	1,505,833	116,905	1,622,738

The reported subscribers and beneficiaries represent USAC data for the time period January 2008 through December 2008, which include true-ups for Lifeline subscribers and Link-Up beneficiaries through March 2009.

Source: Universal Service Administrative Company.

**Table 19.10**  
**Low-Income Support Payments**  
**(In Thousands of Dollars)**

Year	Lifeline					Link Up			Total
	Non-Tribal	Tribal	TLS <sup>1</sup>	PICC <sup>2</sup>	Total	Non-Tribal	Tribal	Total	
1988	\$31,952	\$0	\$0	\$0	\$31,952	\$1,991	\$0	\$1,991	\$33,943
1989	50,878	0	0	0	50,878	4,480	0	4,480	55,358
1990	62,464	0	0	0	62,464	11,351	0	11,351	73,815
1991	79,104	0	0	0	79,104	13,705	0	13,705	92,809
1992	93,766	0	0	0	93,766	15,342	0	15,342	109,108
1993	109,083	0	0	0	109,083	17,019	0	17,019	126,102
1994	123,284	0	0	0	123,284	18,573	0	18,573	141,857
1995	137,277	0	0	0	137,277	18,392	0	18,392	155,670
1996	148,186	0	0	0	148,186	18,247	0	18,247	166,433
1997	147,579	0	0	0	147,579	13,711	0	13,711	161,290
1998 <sup>1</sup>	416,504	0	2,700	2,802	422,006	42,463	0	42,463	464,469
1999	438,576	0	3,136	4,450	446,162	33,991	0	33,991	480,153
2000	482,045	508	2,854	3,168	488,575	30,371	62	30,433	519,007
2001	548,419	6,960	3,195	0	558,574	30,314	475	30,788	589,362
2002	623,350	17,955	3,779	0	645,083	30,323	700	31,022	676,106
2003	657,095	24,167	4,425	0	685,687	30,170	515	30,686	716,373
2004	695,188	30,502	5,111	0	730,800	30,898	1,230	32,129	762,929
2005	716,175	45,096	6,215	0	767,486	31,715	2,788	34,503	801,989
2006	704,045	61,673	8,885	0	774,602	29,832	2,903	32,735	807,337
2007	710,270	73,284	8,514	0	792,069	27,816	3,620	31,436	823,505
2008	695,001	81,114	8,629	0	784,745	30,665	6,620	37,284	822,029

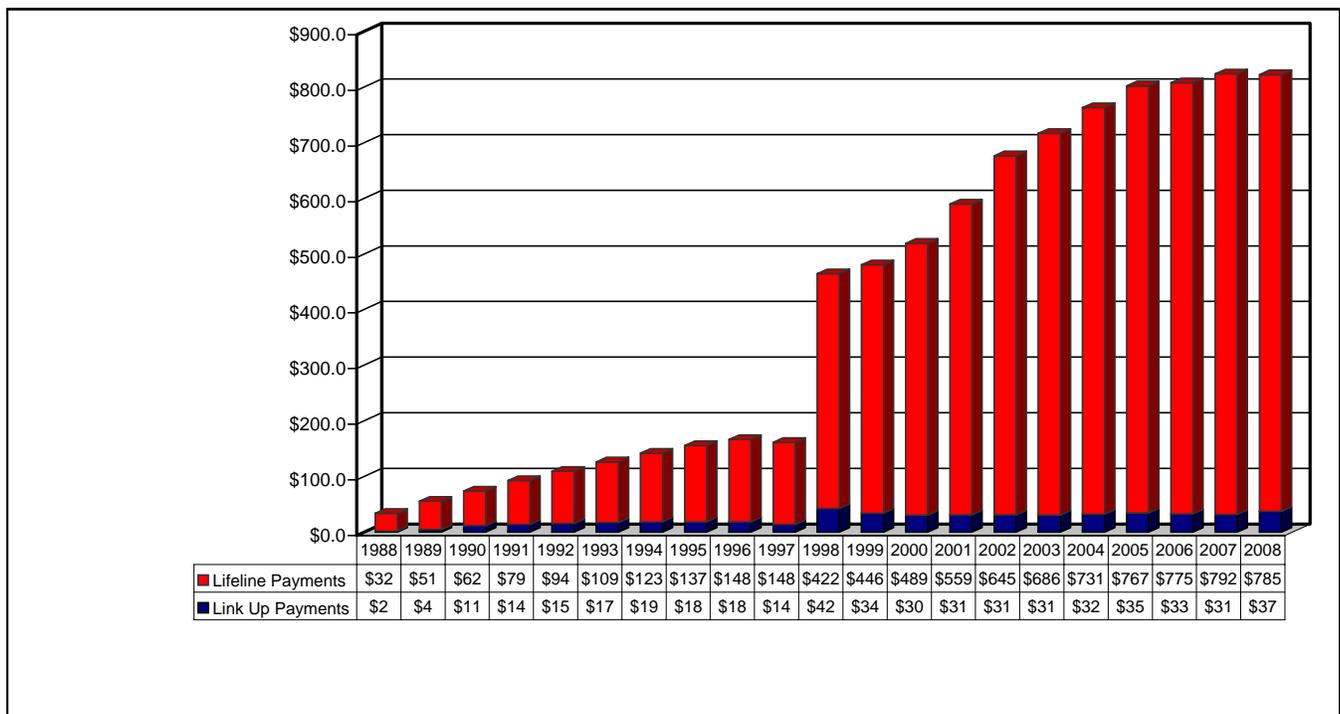
Note: Support payments reported in this table include all low income support disbursed based on commitments for a given year, including all true-ups through September 2009. Support payments reported for 2007 and 2008 in Tables 19.1, 19.2, and 19.12 report disbursements for 2007 and 2008, regardless of the year of the commitments.

<sup>1</sup> TLS is an abbreviation for toll limitation service.

<sup>2</sup> Carriers no longer charge residential Presubscribed Interexchange Access Charges (PICCs) as of July 1, 2000.

Source: Universal Service Administrative Company (USAC).

**Chart 19.5**  
**Lifeline and Link-Up Support Payments**  
**(Dollar Amounts in Millions)**



**Table 19.11**  
**Low-Income Support Payments by State or Jurisdiction: 2007**  
(In Thousands of Dollars)

	Lifeline				Link-Up			Total
	Non-Tribal	Tribal	TLS	Total	Non-Tribal	Tribal	Total	
Alabama	\$5,337	\$1	\$215	\$5,553	\$896	\$0	\$896	\$6,449
Alaska	6,117	11,052	82	17,251	1	242	243	17,494
American Samoa	59	0	0	59	0	0	0	59
Arizona	9,124	12,862	62	22,047	67	177	245	22,292
Arkansas	2,824	0	5	2,830	116	0	116	2,946
California	256,525	30	3,932	260,487	10,921	0	10,921	271,408
Colorado	3,275	1	7	3,283	25	0	25	3,308
Connecticut	4,573	0	1	4,574	72	0	72	4,646
Delaware	224	0	0	224	5	0	5	229
District of Columbia	685	0	0	685	8	0	8	693
Florida	18,965	0	77	19,041	706	0	706	19,747
Georgia	9,017	0	23	9,040	388	0	388	9,428
Guam	280	0	0	280	19	0	19	300
Hawaii	574	0	1	574	5	0	5	579
Idaho	3,657	113	11	3,781	22	0	22	3,803
Illinois	8,764	0	257	9,021	1,316	0	1,316	10,337
Indiana	5,215	0	50	5,265	441	0	441	5,706
Iowa	5,743	0	186	5,930	94	0	94	6,023
Kansas	2,907	4	56	2,968	63	0	63	3,030
Kentucky	7,894	0	98	7,992	239	0	239	8,231
Louisiana	2,966	0	127	3,093	595	0	595	3,688
Maine	7,931	104	8	8,042	310	1	310	8,353
Maryland	564	0	0	564	39	0	39	603
Massachusetts	11,950	0	1	11,951	10	0	10	11,962
Michigan	13,215	52	722	13,989	1,195	0	1,195	15,184
Minnesota	7,078	261	184	7,522	84	7	91	7,613
Mississippi	4,743	6	9	4,758	397	0	397	5,154
Missouri	7,180	1	135	7,316	138	0	138	7,454
Montana	2,154	2,125	13	4,292	9	31	40	4,331
Nebraska	2,369	89	14	2,472	32	0	33	2,505
Nevada	2,997	16	8	3,021	91	0	91	3,112
New Hampshire	576	0	0	576	4	0	4	580
New Jersey	13,295	0	2	13,298	144	0	144	13,442
New Mexico	9,083	5,576	64	14,722	56	86	141	14,864
New York	37,527	2	10	37,538	37	0	37	37,575
North Carolina	13,841	1	31	13,873	119	0	119	13,992
North Dakota	2,500	1,413	19	3,932	35	66	101	4,032
Northern Mariana Islands	101	0	0	101	11	0	11	111
Ohio	31,322	0	175	31,497	976	0	976	32,473
Oklahoma	16,377	32,117	547	49,041	120	2,651	2,771	51,812
Oregon	5,598	42	12	5,652	73	0	73	5,725
Pennsylvania	15,121	0	2	15,123	868	0	868	15,991
Puerto Rico	16,334	0	0	16,334	554	0	554	16,888
Rhode Island	3,964	0	1	3,965	8	0	8	3,973
South Carolina	3,513	1	13	3,528	170	0	170	3,697
South Dakota	2,493	3,406	49	5,947	15	158	173	6,120
Tennessee	7,740	0	196	7,936	944	0	944	8,880
Texas	85,378	28	697	86,104	3,626	1	3,627	89,731
Utah	3,593	119	23	3,736	18	8	26	3,761
Vermont	3,054	0	3	3,056	20	0	20	3,076
Virgin Islands	73	0	0	73	0	0	0	73
Virginia	2,182	0	0	2,183	71	0	71	2,254
Washington	11,809	3,614	27	15,451	486	185	671	16,122
West Virginia	708	0	1	709	19	0	19	728
Wisconsin	8,468	172	301	8,941	1,128	5	1,133	10,074
Wyoming	717	74	58	849	10	0	10	859
Industry Totals	\$710,270	\$73,284	\$8,514	\$792,069	\$27,816	\$3,620	\$31,436	\$823,505

Note: Support payments reported in this table include all low income support disbursed based on commitments for 2007, including all true-ups through September 2009. Support payments reported for 2007 in Tables 19.1, 19.2, and 19.12 report disbursements for 2007, regardless of the year of the commitments.

Source: Universal Service Administrative Company.

**Table 19.11 - Continued**  
**Low-Income Support Payments by State or Jurisdiction: 2008**  
(In Thousands of Dollars)

	Lifeline				Link-Up			Total
	Non-Tribal	Tribal	TLS	Total	Non-Tribal	Tribal	Total	
Alabama	\$8,335	\$2	\$526	\$8,862	\$1,614	\$0	\$1,614	\$10,476
Alaska	7,033	13,381	75	20,489	0	190	190	20,679
American Samoa	62	0	0	62	1	0	1	63
Arizona	8,764	12,694	56	21,514	76	171	247	21,761
Arkansas	3,010	0	5	3,016	175	0	175	3,191
California	210,841	30	3,919	214,790	9,879	0	9,879	224,670
Colorado	3,138	1	6	3,146	43	0	43	3,189
Connecticut	4,235	0	1	4,236	62	0	62	4,298
Delaware	195	0	0	195	3	0	3	199
District of Columbia	639	0	0	639	6	0	6	646
Florida	25,547	0	130	25,676	843	0	843	26,520
Georgia	11,757	0	34	11,790	1,242	0	1,242	13,032
Guam	295	0	0	295	17	0	17	312
Hawaii	472	0	0	473	4	0	4	477
Idaho	3,372	124	9	3,505	35	0	36	3,541
Illinois	8,485	0	145	8,630	1,143	0	1,143	9,772
Indiana	4,992	0	50	5,041	370	0	370	5,411
Iowa	5,030	0	67	5,098	100	0	100	5,198
Kansas	2,885	4	59	2,948	64	0	64	3,013
Kentucky	7,371	0	90	7,460	399	0	399	7,859
Louisiana	3,768	0	47	3,816	600	0	600	4,415
Maine	7,619	135	7	7,762	301	0	302	8,063
Maryland	626	0	0	626	51	0	51	677
Massachusetts	10,888	0	1	10,889	4	0	4	10,893
Michigan	11,514	51	260	11,825	789	0	790	12,615
Minnesota	7,121	524	85	7,730	121	4	125	7,854
Mississippi	6,855	6	13	6,873	999	0	999	7,873
Missouri	7,732	1	128	7,861	164	0	164	8,025
Montana	1,995	2,091	11	4,097	15	27	42	4,138
Nebraska	2,202	95	15	2,311	34	2	36	2,347
Nevada	2,635	18	8	2,661	84	1	85	2,746
New Hampshire	528	0	0	528	1	0	1	529
New Jersey	12,746	0	2	12,748	121	0	121	12,869
New Mexico	8,979	5,909	48	14,937	93	74	167	15,104
New York	35,756	2	9	35,766	27	0	27	35,793
North Carolina	14,536	1	113	14,649	489	0	489	15,139
North Dakota	2,276	1,154	10	3,440	26	21	47	3,487
Northern Mariana Islands	126	0	0	126	13	0	13	139
Ohio	30,369	0	239	30,608	846	0	846	31,454
Oklahoma	18,133	37,634	1,339	57,105	50	5,963	6,013	63,118
Oregon	5,490	41	11	5,543	78	0	78	5,620
Pennsylvania	14,257	0	2	14,259	730	0	730	14,989
Puerto Rico	22,555	0	0	22,555	883	0	883	23,439
Rhode Island	3,660	0	1	3,661	6	0	6	3,667
South Carolina	5,132	5	140	5,276	868	0	868	6,145
South Dakota	1,962	2,197	21	4,180	19	32	51	4,231
Tennessee	9,948	0	77	10,025	886	0	886	10,911
Texas	98,803	32	663	99,498	4,991	5	4,996	104,494
Utah	3,558	191	20	3,768	38	4	42	3,810
Vermont	3,075	0	2	3,077	16	0	16	3,092
Virgin Islands	72	0	0	72	0	0	0	73
Virginia	2,836	0	0	2,837	70	0	70	2,906
Washington	11,530	4,529	26	16,085	416	121	536	16,622
West Virginia	636	0	1	636	13	0	13	650
Wisconsin	8,000	188	138	8,325	737	4	741	9,067
Wyoming	627	74	21	722	8	0	8	730
Industry Totals	\$695,001	\$81,114	\$8,629	\$784,745	\$30,665	\$6,620	\$37,284	\$822,029

Note: Support payments reported in this table include all low income support disbursed based on commitments for 2008, including all true-ups through September 2009. Support payments reported for 2008 in Tables 19.1, 19.2, and 19.12 report disbursements for 2008, regardless of the year of the commitments.

Source: Universal Service Administrative Company.

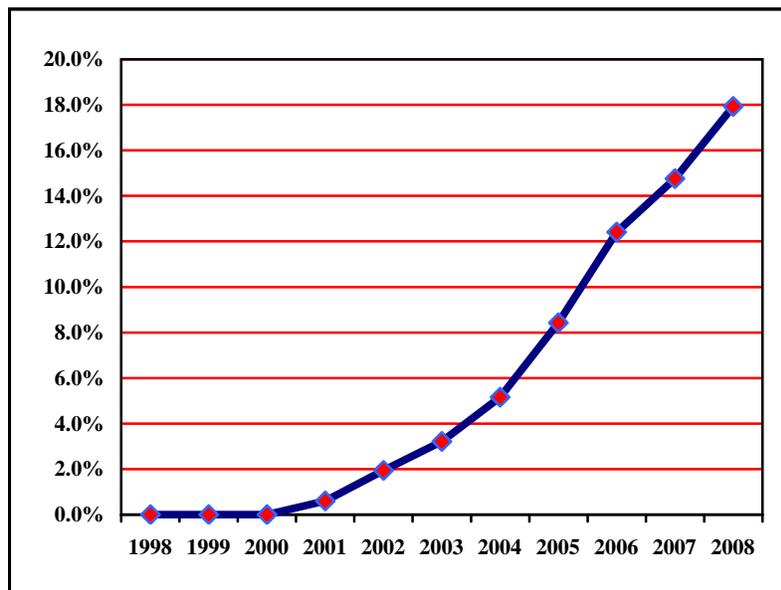
**Table 19.12**  
**Low-Income Support Received by ILECs and CETCs**  
**(In Millions of Dollars)**

	<b>ILECs</b>	<b>CETCs</b>	<b>Total</b>	<b>Percent CETCs</b>
1996	\$166	\$0	\$166	0.0 %
1997	161	0	161	0.0
1998	464	0	464	0.0
1999	480	0	480	0.0
2000	519	0	519	0.0
2001	586	4	589	0.6
2002	663	13	676	1.9
2003	693	23	716	3.2
2004	724	39	763	5.2
2005	734	68	802	8.4
2006	707	100	807	12.4
2007	702	122	824	14.8
2008	675	147	822	17.9

Notes: ILECs is an abbreviation for incumbent local exchange carriers. CETCs is an abbreviation for competitive eligible telecommunications carriers. CETCs include both wireless and wireline carriers. In 2006, CETCs include temporary ETCs. Most companies that received Hurricane Katrina support were designated as temporary ETCs specifically for the purpose of serving consumers affected by Hurricane Katrina.

Source: Universal Service Administrative Company.

**Chart 19.6**  
**Percent of Low-Income Support Received by CETCs**



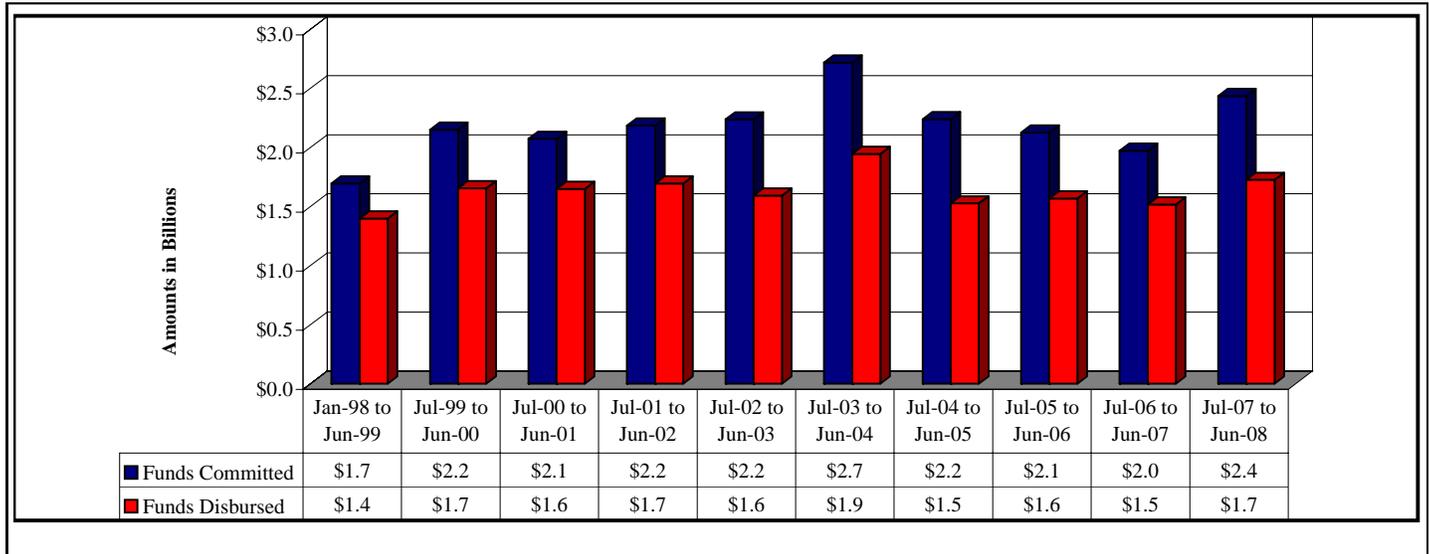
**Table 19.13**  
**Schools and Libraries Funding by Type of Service**  
**Funds Committed and Disbursed Through June 30, 2009<sup>1</sup>**  
**(In Thousands of Dollars)**

Funding Period	Internal Connections		Internet Access		Telecommunications		Totals	
	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed
Jan-98 to Jun-99	\$886,046	\$797,353	\$134,153	\$94,913	\$675,892	\$507,646	\$1,696,090	\$1,399,911
Jul-99 to Jun-00	1,367,140	1,105,726	149,569	95,499	634,062	452,988	2,150,772	1,654,213
Jul-00 to Jun-01	1,134,712	1,034,493	219,279	133,473	719,847	481,216	2,073,838	1,649,181
Jul-01 to Jun-02	1,184,027	1,007,328	224,896	149,424	775,455	539,621	2,184,379	1,696,372
Jul-02 to Jun-03	1,127,917	809,579	250,484	170,991	859,565	613,128	2,237,966	1,593,697
Jul-03 to Jun-04	1,534,433	1,083,746	276,239	203,843	908,026	659,186	2,718,698	1,946,775
Jul-04 to Jun-05	1,045,758	646,110	245,763	192,793	946,845	688,071	2,238,365	1,526,974
Jul-05 to Jun-06	882,381	596,181	264,102	213,045	979,104	759,945	2,125,587	1,569,172
Jul-06 to Jun-07	613,080	445,085	290,475	233,545	1,068,856	838,369	1,972,411	1,517,000
Jul-07 to Jun-08	959,354	576,126	309,146	251,868	1,167,534	898,175	2,436,034	1,726,169
Jul-08 to Jun-09	733,030	244,620	331,840	201,096	1,269,955	622,629	2,334,826	1,068,346

<sup>1</sup> Because of the appeals process, funding commitments and disbursements can be made after the program years' end.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau, FCC.

**Chart 19.7**  
**Total Schools and Libraries Funds Committed and Disbursed**



**Table 19.14**  
**Schools and Libraries Funding by State and by Type of Service**  
**Funding Period: July 1, 2007 Through June 30, 2008**  
**Activity Through June 30, 2009<sup>1</sup> (In Thousands of Dollars)**

State/Territory	Internal Connections		Internet Access		Telecom. and Dedicated		Totals	
	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed	Funds Committed	Funds Disbursed
Alabama	\$7,681	\$7,394	\$15,455	\$13,232	\$18,590	\$15,693	\$41,725	\$36,318
Alaska	1,370	602	9,869	9,275	10,642	9,753	21,882	19,630
American Samoa	30	30	650	650	97	20	777	700
Arizona	28,970	23,182	6,989	4,667	21,708	15,380	57,667	43,229
Arkansas	5,625	4,320	1,189	782	20,736	13,469	27,550	18,571
California	252,009	110,582	20,853	15,487	161,421	113,197	434,283	239,265
Colorado	2,151	2,043	2,852	2,335	13,987	11,714	18,990	16,092
Connecticut	9,098	6,882	2,020	1,334	17,761	15,209	28,879	23,426
Delaware	0	0	11	9	1,792	1,740	1,803	1,749
District of Columbia	3,439	1,738	291	96	9,144	5,135	12,874	6,968
Florida	29,470	24,857	16,930	14,397	51,934	44,060	98,334	83,314
Georgia	28,058	23,264	9,027	7,704	39,991	34,305	77,077	65,273
Guam	0	0	2	0	15	8	17	8
Hawaii	59	8	773	594	2,544	1,499	3,376	2,101
Idaho	745	576	2,214	1,719	2,780	2,256	5,738	4,552
Illinois	55,053	37,719	9,163	6,211	42,011	32,053	106,227	75,983
Indiana	6,053	1,756	14,104	11,203	16,456	14,172	36,613	27,132
Iowa	200	28	2,344	1,990	9,330	7,767	11,874	9,785
Kansas	2,911	2,865	4,400	3,721	11,873	9,954	19,184	16,540
Kentucky	5,958	5,163	1,470	855	24,656	20,429	32,084	26,447
Louisiana	17,294	11,210	7,117	6,327	21,888	17,942	46,299	35,479
Maine	532	338	998	949	6,629	5,536	8,159	6,823
Maryland	5,093	789	1,530	1,170	13,091	10,190	19,714	12,149
Massachusetts	8,301	7,454	6,717	5,529	13,820	11,035	28,838	24,019
Michigan	14,608	5,936	8,064	6,762	37,058	29,317	59,731	42,014
Minnesota	7,098	5,980	5,439	4,421	14,129	12,300	26,666	22,700
Mississippi	9,439	7,885	1,409	539	22,544	16,214	33,392	24,638
Missouri	3,642	3,118	3,132	2,229	18,464	13,263	25,238	18,610
Montana	484	471	999	874	2,580	2,160	4,063	3,505
Nebraska	83	47	1,129	959	8,429	7,292	9,641	8,298
Nevada	4,855	366	525	492	3,416	2,963	8,795	3,820
New Hampshire	31	14	804	630	1,596	1,177	2,431	1,821
New Jersey	13,138	10,499	6,113	4,355	31,092	24,060	50,343	38,914
New Mexico	26,881	20,838	3,682	2,516	8,233	6,123	38,795	29,477
New York	170,636	102,352	14,223	11,698	122,471	81,358	307,330	195,408
North Carolina	20,597	14,613	12,866	11,515	32,074	26,742	65,537	52,869
North Dakota	505	471	166	159	3,482	3,237	4,153	3,867
Northern Mariana Islands	162	162	511	465	369	324	1,042	952
Ohio	27,381	15,088	16,086	15,030	41,612	33,097	85,079	63,214
Oklahoma	18,043	14,956	9,636	7,702	20,896	16,123	48,575	38,782
Oregon	1,503	1,246	4,385	3,189	8,744	6,697	14,632	11,132
Pennsylvania	8,123	6,208	10,884	9,214	43,413	35,899	62,420	51,322
Puerto Rico	1,217	888	2,714	2,006	5,185	391	9,116	3,285
Rhode Island	1,423	1,076	1,045	988	3,434	3,052	5,902	5,116
South Carolina	11,497	7,048	4,275	4,016	21,240	19,361	37,011	30,425
South Dakota	1,687	1,167	559	515	4,308	3,066	6,554	4,747
Tennessee	4,552	3,543	27,344	21,378	15,286	14,193	47,182	39,114
Texas	126,108	66,196	18,219	15,079	75,292	59,234	219,618	140,509
Utah	2,288	2,031	1,243	677	15,131	11,712	18,661	14,420
Vermont	4	0	692	537	1,217	943	1,913	1,479
Virgin Islands	2,085	2,032	2,706	2,600	657	597	5,448	5,229
Virginia	1,156	933	6,597	5,879	22,657	20,323	30,410	27,135
Washington	8,702	7,475	2,744	1,847	17,958	14,618	29,404	23,940
West Virginia	158	56	1,274	1,141	9,080	7,619	10,512	8,817
Wisconsin	1,077	568	2,515	2,045	18,453	9,508	22,045	12,121
Wyoming	91	62	200	175	4,138	2,699	4,428	2,936
<b>Totals</b>	<b>\$959,354</b>	<b>\$576,126</b>	<b>\$309,146</b>	<b>\$251,868</b>	<b>\$1,167,534</b>	<b>\$898,175</b>	<b>\$2,436,034</b>	<b>\$1,726,169</b>

<sup>1</sup> Because of the appeals process, funding commitments have been made after the program year ended on June 30, 2008.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau, FCC.

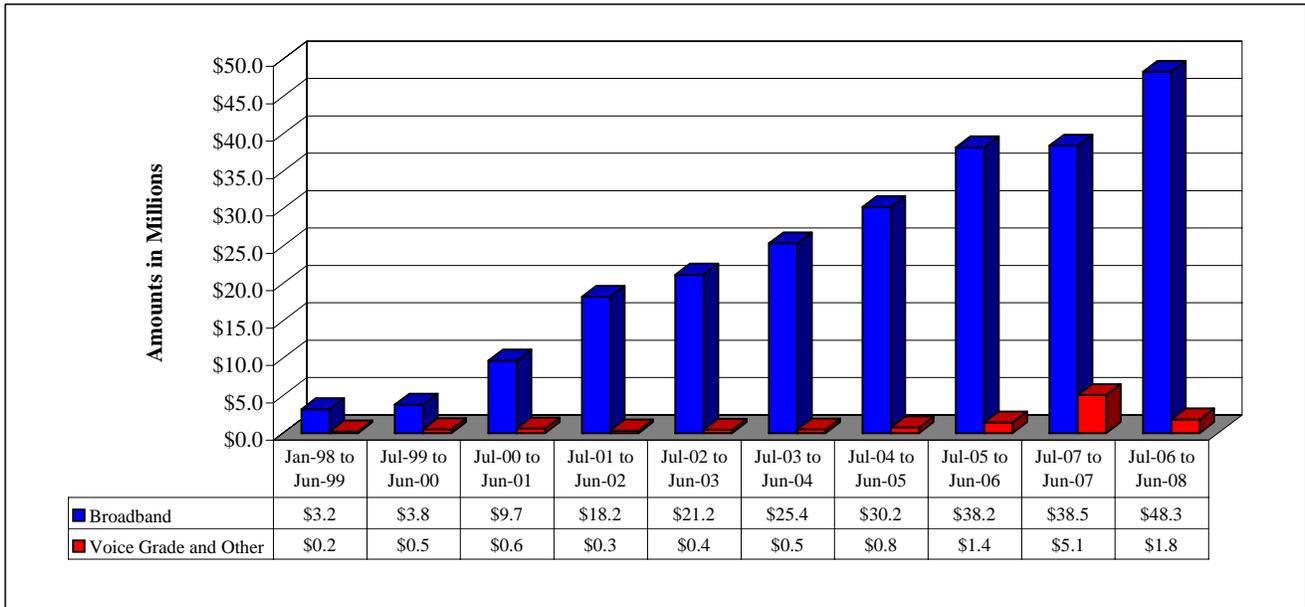
**Table 19.15**  
**Rural Health Care Fund Disbursements by Service Speed**  
**Activity Through June 30, 2009<sup>1</sup>**

Funding Year	Voice Grade	Broadband		Other Service or Speed Unknown	Total
	56K to 199K	200K to 1.49Mb	1.5Mb and faster		
Jan-98 to Jun-99	\$202,778	\$880,375	\$2,292,252	\$0	\$3,375,405
Jul-99 to Jun-00	452,992	1,073,816	2,719,619	58,132	4,304,559
Jul-00 to Jun-01	613,595	3,802,601	5,897,976	0	10,314,172
Jul-01 to Jun-02	319,539	13,256,841	4,978,963	0	18,555,343
Jul-02 to Jun-03	428,506	14,222,035	6,969,587	0	21,620,128
Jul-03 to Jun-04	477,657	15,917,701	9,469,267	7,559	25,872,184
Jul-04 to Jun-05	611,101	17,511,205	12,733,212	141,133	30,996,651
Jul-05 to Jun-06	899,135	23,270,642	14,956,523	520,114	39,646,414
Jul-06 to Jun-07	1,006,698	21,707,378	16,746,517	4,066,979	43,527,572
Jul-07 to Jun-08	1,231,390	25,740,082	22,590,045	596,518	50,158,034
Jul-08 to Jun-09	426,472	11,626,702	10,597,776	0	22,650,950

<sup>1</sup> Because of the appeals process, funding commitments and disbursements may be made after the program year ended.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division, Wireline Competition Bureau, FCC.

**Chart 19.8**  
**Rural Health Care Fund Disbursements by Service Speed**



**Table 19.16**  
**Rural Health Care Fund Disbursements by Service Speed and by State**  
**Funding Period: July 1, 2007 Through June 30, 2008**  
**Activity Through June 30, 2009<sup>1</sup>**

State	Voice Grade <sup>2</sup>	Broadband <sup>2</sup>		Other Service or Speed Unknown <sup>2</sup>	Total
	56 kbps to 199 kbps	200 kbps to 1.49 Mbps	1.5 Mbps and Faster		
Alabama	\$23,283	\$89,678	\$38,287	\$0	\$151,248
Alaska	0	21,717,566	7,054,650	0	28,772,216
American Samoa	0	108,400	0	0	108,400
Arizona	1,723	52,126	1,157,221	0	1,211,070
Arkansas	0	84,876	99,424	0	184,300
California	5,350	66,820	409,198	19,200	500,567
Colorado	2,919	2,365	85,854	0	91,139
Connecticut	0	0	0	0	0
Delaware	0	413	0	0	413
District of Columbia	0	0	0	0	0
Florida	0	17,680	383,254	0	400,933
Georgia	103,770	103,194	913,966	243,275	1,364,205
Guam	0	0	6,860	0	6,860
Hawaii	0	6,208	177,676	0	183,884
Idaho	0	34,994	192,809	0	227,804
Illinois	10,468	92,698	581,305	0	684,471
Indiana	17,860	85,533	394,878	0	498,271
Iowa	81,580	43,411	335,235	0	460,226
Kansas	6,120	40,983	154,211	0	201,314
Kentucky	32,150	205,258	272,690	0	510,098
Louisiana	0	16,867	31,326	0	48,193
Maine	361	36,849	2,103	0	39,314
Maryland	0	0	0	0	0
Massachusetts	0	2,953	125,577	0	128,530
Michigan	14,051	63,111	726,338	0	803,500
Minnesota	3,616	207,643	1,856,593	25,444	2,093,296
Mississippi	23,847	22,323	105,109	0	151,279
Missouri	2,300	37,511	287,616	0	327,428
Montana	0	41,073	560,785	7,828	609,686
Nebraska	0	37,966	1,431,609	0	1,469,575
Nevada	0	0	6,784	0	6,784
New Hampshire	0	0	0	0	0
New Jersey	0	0	0	0	0
New Mexico	0	209,476	93,468	0	302,944
New York	144	6,283	32,187	0	38,614
North Carolina	8,190	25,158	167,627	0	200,974
North Dakota	8,130	233,223	216,021	0	457,375
Northern Mariana Islands	0	0	0	0	0
Ohio	14,572	89,194	35,831	74,380	213,978
Oklahoma	0	248,758	2,500	0	251,258
Oregon	0	61,293	59,367	46,440	167,100
Pennsylvania	7,821	13,843	75,435	0	97,100
Puerto Rico	0	0	0	0	0
Rhode Island	0	0	0	0	0
South Carolina	0	27,960	1,859	0	29,819
South Dakota	1,920	60,083	1,045,367	0	1,107,370
Tennessee	0	13,050	346,220	0	359,271
Texas	37,017	123,299	71,578	14,819	246,713
Utah	311	19,011	394,391	0	413,713
Vermont	0	25,720	69,679	42,371	137,770
Virgin Islands	0	51,318	0	0	51,318
Virginia	0	90,760	366,521	122,760	580,040
Washington	0	7,903	32,096	0	39,999
West Virginia	20,815	68,676	95,005	0	184,496
Wisconsin	803,071	1,146,112	1,968,402	0	3,917,585
Wyoming	0	464	125,133	0	125,596
Totals	\$1,231,390	\$25,740,082	\$22,590,045	\$596,518	\$50,158,034

<sup>1</sup> Because of the appeals process, funding commitments have been made after the program year ended on June 30, 2008.

<sup>2</sup> USAC data contain a short description of the services the health care providers receive. These service descriptions are rolled up into the categories above. Some inferences were made when service speed was not clearly indicated. For example, frame relay was assumed to be broadband in the range of 200 kbps to 1.5 Mbps, even though some frame relay service speeds may be faster.

Source: USAC data. Rollups performed by the Industry Analysis and Technology Division staff, Wireline Competition Bureau, FCC.

**Table 19.17**  
**Universal Service Fund Contribution Factors for End-User Revenues**

Year	Quarter	Interstate	Intrastate
1998	First Quarter	3.19 %	0.72 %
	Second Quarter	3.14	0.76
	Third Quarter	3.14	0.75
	Fourth Quarter	3.18	0.75
1999	First Quarter	3.18	0.58
	Second Quarter	3.05	0.57
	Third Quarter	2.94	0.99
	Fourth Quarter (Oct.) <sup>2</sup>	2.887	1.10
	Fourth Quarter (Nov. & Dec.) <sup>2</sup>	5.8995	
2000	First Quarter	5.8770	
	Second Quarter	5.7101	
	Third Quarter	5.5360	
	Fourth Quarter	5.6688	
2001	First Quarter	6.6827	
	Second Quarter	6.8823	
	Third Quarter	6.8941	
	Fourth Quarter	6.9187	
2002	First Quarter	6.8086	
	Second Quarter	7.2805	
	Third Quarter <sup>3</sup>	7.2805	
	Fourth Quarter	7.2805	
2003	First Quarter	7.2805	
	Second Quarter <sup>4</sup>	9.1	
	Third Quarter	9.5	
	Fourth Quarter	9.2	
2004	First Quarter	8.7	
	Second Quarter	8.7	
	Third Quarter	8.9	
	Fourth Quarter	8.9	
2005	First Quarter	10.7	
	Second Quarter	11.1	
	Third Quarter	10.2	
	Fourth Quarter	10.2	
2006	First Quarter	10.2	
	Second Quarter	10.9	
	Third Quarter	10.5	
	Fourth Quarter	9.1	
2007	First Quarter	9.7	
	Second Quarter	11.7	
	Third Quarter	11.3	
	Fourth Quarter	11.0	
2008	First Quarter	10.2	
	Second Quarter	11.3	
	Third Quarter	11.4	
	Fourth Quarter	11.4	
2009	First Quarter	9.5	
	Second Quarter	11.3	
	Third Quarter	12.9	
	Fourth Quarter	12.3	
2010	First Quarter	14.1	
	Second Quarter	15.3	
	Third Quarter	13.6	
	Fourth Quarter	12.9	

<sup>1</sup> Initially, contributions for the schools and libraries and rural health care support mechanisms were based on interstate, international, and intrastate end-user telecommunications revenues, while contributions for high-cost and low-income support mechanisms were based on interstate and international end-user telecommunications revenues. See *Federal-State Joint Board on Universal Service*, CC Docket No. 96-45, Report and Order, 12 FCC Rcd 8776, 9200-05 (1997). Following a decision by the United States Court of Appeals for the Fifth Circuit, the Commission established a single contribution base for all universal service support mechanisms based on interstate and international revenues. See *Federal-State Joint Board on Universal Service, Access Charge Reform*, Sixteenth Order on Reconsideration and Eighth Report and Order in CC Docket No. 96-45 and Sixth Report and Order in CC Docket No. 96-262, 15 FCC Red 1679, 1685-86, para. 15 (1999) (*Eighth Report and Order*).

<sup>2</sup> Consistent with the Eighth Report and Order, the Wireline Competition Bureau (formerly Common Carrier Bureau) issued a single universal service contribution factor for November and December 1999. Effective November 1, 1999, this single contribution factor superseded the fourth quarter 1999 contribution factors previously announced by the Bureau on September 10, 1999. See Proposed Fourth Quarter 1999 Universal Service Contribution Factors, CC Docket No. 96-45, Public Notice, DA 99-2109 (Com. Car. Bur., rel. Oct. 8, 1999); See Proposed Fourth Quarter 1999 Universal Service Contribution Factors, CC Docket No. 96-45, Public Notice, DA 99-1857 (Com. Car. Bur., rel. Sept. 10, 1999).

<sup>3</sup> In the Schools First Report and Order, the Commission concluded that unused funds from the schools and libraries support mechanism would be applied to stabilize the collection requirement for universal service for the third and fourth quarters of 2002, and the first quarter of 2003, as necessary. (See *Schools and Libraries Universal Service Support Mechanism*, CC Docket No. 2-6, First Report and Order, 17 FCC Red 11521 (2002)).

<sup>4</sup> Beginning with the second quarter of 2003, carriers contribute based on projected, collected, end-user interstate and international telecommunications revenues. Previously, carriers contributed based on historical, gross-billed revenues. The Commission also released an Order and Second Order on Reconsideration, which, inter alia, directed the Wireline Competition Bureau to announce the universal service contribution factor as a percentage rounded up to the nearest tenth of one percent. (See *Federal Joint Board on Universal Service, 1998 Biennial Regulatory Review - Streamlined Contributor Reporting Requirements Associated with Administration of Telecommunications Relay Service, North American Numbering Plan, Local Number Portability, and Universal Service Support Mechanisms, Telecommunications Services for Individuals with Hearing and Speech Disabilities, and the Americans with Disabilities Act of 1990, Administration of the North American Numbering Plan and North American Numbering Plan Cost Recovery Contribution Factor and Fund Size, Number Resource Optimization, Telephone Number Portability, Truth-in-Billing and Billing Format*, Order and Second Order on Reconsideration, CC Docket Nos. 96-45, 98-171, 90-571, 92-237, 99-200, 95-116, 98-170, FCC 03-58 (rel. March 14, 2003), at para. 22.)

Source: Quarterly Public Notices on universal service contribution factors are in CC Docket 96-45. See <http://www.fcc.gov/omd/contribution-factor.html>.

**Table 19.18**  
**Share of Universal Service Contributions**  
**By Principal Type of Contributor Using Traditional Carrier Categories** <sup>1 2</sup>

Service Provider Category	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	Preliminary 1/ Q3		
											2008	2009	
<b>Fixed Local Service Providers</b>													
Regional Bell Operating Companies (RBOCs) Including Local Affiliates	14.4 %	14.4 %	16.4 %	18.4 %	20.2 %	20.3 %	20.4 %	20.4 %	18.6 %	14.5 %	13.6 %	12.9 %	
Other Incumbent Local Exchange Carriers (LECs) Including Local Affiliates	1.4	1.5	1.7	2.1	2.9	3.3	4.1	4.2	4.2	3.7	3.7	3.5	
Competitive Local Exchange Carriers (CLECs) Local Resellers, Payphone Providers and Other Local Carriers, Excluding LEC Affiliates	1.4	2.7	2.3	2.8	3.4	3.6	3.8	4.4	5.3	6.4	7.8	9.3	
<b>Total: Fixed Local Service Providers</b>	<b>17.2</b>	<b>18.6</b>	<b>20.4</b>	<b>23.2</b>	<b>26.5</b>	<b>27.2</b>	<b>28.2</b>	<b>29.0</b>	<b>28.1</b>	<b>24.6</b>	<b>25.1</b>	<b>25.7</b>	
<b>Wireless Service Providers</b>													
Wireless Affiliates of RBOCs							16.4	16.9	20.3	21.7	22.6	28.2	
Wireless Affiliates of Other Incumbent LECs							2.1	2.0	0.4	0.5	0.4	0.3	
Wireless Telephony, Paging, SMR and Other Wireless Providers, Excluding LEC Affiliates							10.4	11.6	15.3	18.3	18.9	14.6	
<b>Total Wireless Service Providers</b>	<b>5.1</b>	<b>6.6</b>	<b>9.4</b>	<b>12.1</b>	<b>17.4</b>	<b>25.3</b>	<b>28.9</b>	<b>30.6</b>	<b>36</b>	<b>40.4</b>	<b>41.9</b>	<b>43.1</b>	
<b>Toll Service Providers</b>													
Toll Affiliates of RBOCs	2	2	2	3	4	5	7.2	8.6	29.1	27.4	25.5	23.4	
Toll Affiliates of Other Incumbent LECs							0.5	0.6	1.1	1.3	1.3	1.3	
IXCs, Toll Resellers, Prepaid Calling Card, Satellite Service, and Other Toll providers, Excluding LEC Affiliates							35.1	31.2	5.8	6.4	6.1	6.4	
<b>Total Toll Service Providers</b>	<b>77.7</b>	<b>74.8</b>	<b>70.2</b>	<b>64.7</b>	<b>56.1</b>	<b>47.5</b>	<b>42.8</b>	<b>40.4</b>	<b>35.9</b>	<b>35.0</b>	<b>32.9</b>	<b>31.2</b>	
<b>RBOCs and Affiliates</b>							43.9	46.0	68.0	63.6	61.7	64.6	
Other Incumbant LECs and Affiliates							<u>6.7</u>	<u>6.8</u>	<u>5.6</u>	<u>5.4</u>	<u>5.4</u>	<u>5.1</u>	
All Other Service Providers							49.4	47.3	26.4	31.0	32.9	30.3	
<b>Total All Filers</b>	<b>100.0 %</b>	<b>100.0 %</b>											

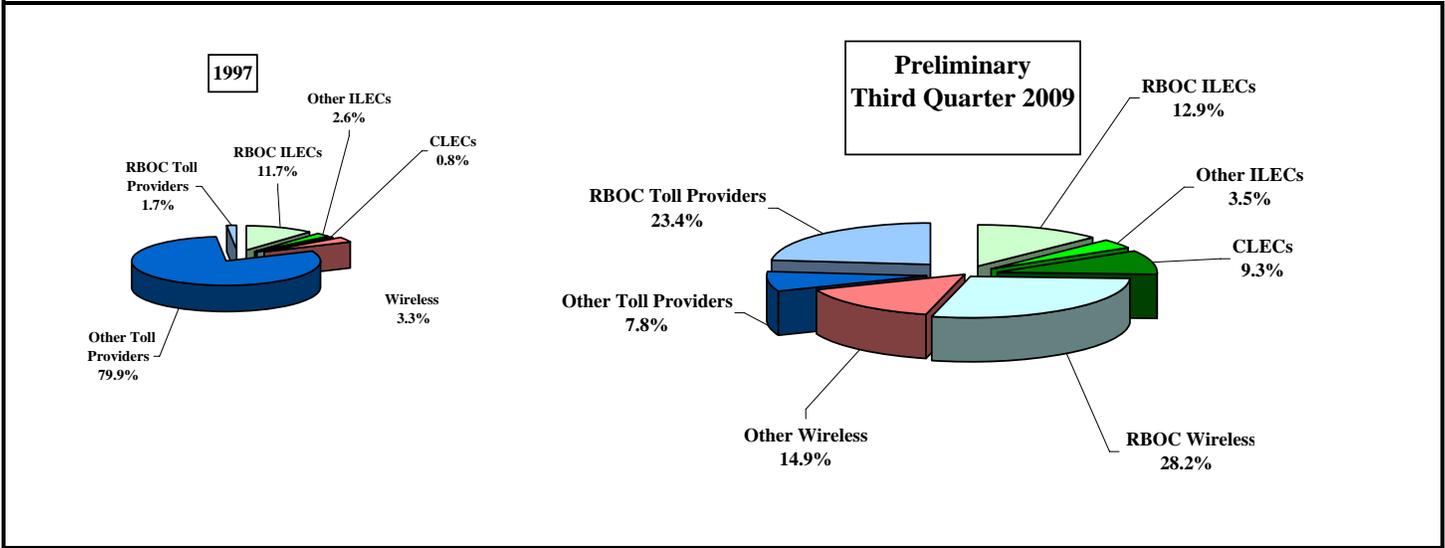
Note: Detail may not add to totals due to rounding. Some data for prior years have been revised. Data for 1997 are available in prior year reports.

<sup>1</sup> For years 1997 through 2002, the percentages are based on shares of reported subject interstate and international end-user billed revenues. The percentages shown for 2003 through 2007 are based on shares of reported subject interstate and international end-user collected revenues. Preliminary percentages shown for 2008 and 2009 are based on projected collected revenues from FCC Form 499-Q filings. Calculations exclude revenues for calls that both originate and terminate in foreign points. Calculations for years 1999 through 2003 include revenues for all filers. For the purposes of this table, AT&T and MCI filings are classified as RBOC filings as of the first quarter of 2006. The Sprint Nextel 2004 and 2005 wireless and toll filings are classified as non-ILEC to be consistent with later years.

<sup>2</sup> Prior to 2004, the FCC Form 499-A asked each filer to identify a single category of communications business that best described its operations. The service provider categories listed on FCC Form 499-A correspond to traditional breakdowns of the industry. For 2004 and 2005, carriers were allowed to specify more than one category and were allowed to identify themselves as an All Distance service provider. Revenues from these filers have been categorized using the traditional industry classification that best described each company.

Source: Industry Analysis and Technology Division, Wireline Competition Bureau, *Telecommunications Industry Revenues* and FCC 499-Q filings.

**Chart 19.9**  
**Share of Universal Service Contributions by Principal Type of Contributor**



## **20 Appendix A – List of Publications by the Industry Analysis and Technology Division**

Most recent release dates are shown in parentheses:

*Infrastructure of the Local Operating Companies* (October 2000). Updates can be found in Section 10 of the December 2008 *Monitoring Report*.

*Internet Access Services (formerly High-Speed Services for Internet Access): Status as of June 30, 2009* (September 2010)

*Local Telephone Competition: Status as of June 30, 2009* (September 2010).

*Universal Service Monitoring Report* (December 2009).

*Numbering Resource Utilization in the United States* (February 2010).

*Quality of Service Report of the Local Operating Companies* (December 2009).

*Reference Book of Rates, Price Indices, and Household Expenditures for Telephone Service* (August 2008).

*State-by-State Telephone Revenues and Universal Service Data* (April 2001). Updates can be found in Section 1 of the *Monitoring Report*.

*Statistics of Communications Common Carriers, 2006/2007 Edition* (September 2010).

*Statistics of the Long Distance Telecommunications Industry* (May 2003).

*Telecommunications Industry Revenues: 2008* (September 2010).

*Telecommunications Provider Locator* (January 2010).

*Telephone Penetration by Income by State* (May 2010).

*Telephone Subscribership in the United States* (August 2010).

*Telephone Subscribership on American Indian Reservations and Off-Reservations Trust Lands* (May 2003).

*Trends in Telephone Service* (August 2008).

## 21 Appendix B – Sources of Telecommunications Information

The information in this report and, in many cases, more detailed information can be downloaded from the Wireline Competition Bureau Statistical Reports web page at [www.fcc.gov/wcb/stats](http://www.fcc.gov/wcb/stats).

Printed copies of various statistical reports are available for reference in the FCC's Reference Information Center, Courtyard Level, 445 12th Street, S.W., and from the Commission's duplicating contractor, Best Copy and Printing, Inc., 800-378-3160.

Additional information on regulated carriers, including investments, revenues, expenses, and earnings, is contained in the annual *Statistics of Communications Common Carriers*. The 2006/2007 edition can be found on the Wireline Competition Bureau Statistical Reports web page at [www.fcc.gov/wcb/iatd/socc.html](http://www.fcc.gov/wcb/iatd/socc.html).

Filings with the Securities and Exchange Commission, such as the annual reports on Form 10-K, can be downloaded from the U.S. Securities and Exchange Commission web page at [www.sec.gov](http://www.sec.gov).

The names, addresses, and telephone numbers for companies in the telephone industry are published in the Industry Analysis and Technology Division's *Telecommunications Provider Locator*, which can also be downloaded at [www.fcc.gov/wcb/iatd/locator.html](http://www.fcc.gov/wcb/iatd/locator.html). The most recent report was released on January 2010.

In April 2001, the Commission began requiring all new and existing telecommunications carriers providing interstate telecommunications services to register with the FCC using the FCC Form 499-A. Carriers file the form with the Commission's data collection agent, the Universal Service Administrative Company. Copies of the form can be downloaded from the Internet at [www.fcc.gov/formpage.html](http://www.fcc.gov/formpage.html). Information on registered companies can be found on the Internet at <http://fjallfoss.fcc.gov/cgb/form499/499a.cfm>.

The information on personal consumption expenditures (Table 3.3) comes from the Bureau of Economic Analysis, National Economic Accounts, Table 2.4.5. Personal Consumption Expenditures by Type of Product. See <http://www.bea.gov/national/nipaweb/SelectTable.asp?Selected=N>.

The information on consumer expenditures (Table 3.1), employment (Tables 5.1 and 5.2), and price indices (Tables 12.1 - 12.3) comes from the Bureau of Labor Statistics and can be found on the Internet at [www.bls.gov](http://www.bls.gov).

FCC rules require carriers to provide more detailed traffic data about international telephone service than about domestic service. Because of delays in international settlements, such information is typically received by the Commission much later than domestic data and is usually published separately. Tables 6.1 - 6.5 contain summary information on international telephone service. More detailed international data are available from *International*

*Telecommunications Data and Trends in the International Telecommunications Industry*, both of which are published by the International Bureau and are available at [www.fcc.gov/wcb/iatd/intl.html](http://www.fcc.gov/wcb/iatd/intl.html).

Tables 18.4 and 18.5 on area codes come from the North American Numbering Plan Administration (NANPA), which is part of Neustar, Inc. Additional information on NANPA can be found on the Internet at [www.nanpa.com](http://www.nanpa.com).

The information on wireless telephone service shown in Tables 11.1 and 11.3 was prepared from data received from CTIA-The Wireless Association™ 1600 16th Street N.W., Washington, D.C. 20036, 202-785-0081. CTIA can be found on the Internet at [www.ctia.org](http://www.ctia.org).

TNS Telecoms (TNS) has donated databases to the Commission containing information on residential phone usage collected from actual consumer telecommunications bills. TNS has granted the Commission permission to use these databases for research purposes and to publish the industry level results. TNS has been monitoring the telecommunications market since 1995 through both the ReQuest® consumer survey and Bill Harvesting® in the residential market and the BusinessWave® business survey in the business market. Tables 9.5, 9.6, and 14.1 - 14.6 are developed from these databases. For additional information, visit [www.tnstelecoms.com](http://www.tnstelecoms.com) or contact them at 1-866-811-TNST or by e-mail at [contact@tnstelecoms.com](mailto:contact@tnstelecoms.com). Their address is 101 Greenwood Avenue, Suite 502, Jenkintown, PA 19046.

On June 12, 2008, the Commission released its Fifth Report to the Congress on the *Availability of Advanced Telecommunications Capability in the United States*. A copy of this can be found on the Commission's web site at [http://hraunfoss.fcc.gov/edocs\\_public/attachmatch/FCC-08-88A1.pdf](http://hraunfoss.fcc.gov/edocs_public/attachmatch/FCC-08-88A1.pdf). A copy may also be obtained through from the Commission's duplicating contractor.

Copies of NTIA's 2010 report entitled, *Digital Nation: 21<sup>st</sup> Century America's Progress Toward Universal Broadband Internet Access*, as well as NTIA's 2008 report entitled, *Networked Nation: Broadband in America 2007* can be obtained through NTIA's web site at [www.ntia.doc.gov](http://www.ntia.doc.gov) or by contacting NTIA's Office of Public Affairs at (202) 482-7002.

Tables 17.1, 17.2, and 17.4 contain information from the ARMIS 43-07 reports for the Bell operating companies. Table 17.3 contains information from the ARMIS 43-05. Individual carrier information can be obtained from the ARMIS web page at [www.fcc.gov/wcb/armis](http://www.fcc.gov/wcb/armis).

Chart 17.1 shows the number of patents granted for telecommunications. Additional information on U.S. patents can be found on the Internet at [www.uspto.gov](http://www.uspto.gov).

The National Exchange Carrier Association (NECA) administers access charge revenue pooling for about 1,100 local telephone companies. Their headquarters is located at 80 South Jefferson Road, Whippany, NJ 07981-1009, and they can be reached at 800-228-8597. NECA's website can be found on the Internet at [www.neca.org](http://www.neca.org).

The United States Telecom Association (USTA) (1401 H Street N.W., Washington, D.C. 20005, 202-326-7300) represents most incumbent local telephone companies. Like many trade associations, it collects information from each of its members. It publishes and sells various reports including an annual publication called *Phone Facts*. USTA's website can be found on the Internet at [www.usta.org](http://www.usta.org).

Comptel/ALTS was formed in March 2005 by the merger of Comptel/ASCENT and the Association for Local Telecommunications Services (ALTS) and is currently located at 900 17<sup>th</sup> Street, N.W., Suite 400, Washington, D.C. 20006, 202-296-6650). They represent facilities-based competitive telecommunications service providers, emerging VOIP providers, integrated communications companies, and their service partners, and can be found on the Internet at <http://www.comptel.org>.

## 22 Appendix C – Contacting the Report Authors

*Trends in Telephone Service* was prepared by the Industry Analysis and Technology Division, Wireline Competition Bureau, Federal Communications Commission. Principal authors of the report can be contacted at their electronic mail addresses or by calling the Industry Analysis and Technology Division at 202-418-0940. Users of TTY equipment should call 202-418-0484.

Access Charges .....	James Eisner
Advanced Telecommunications.....	James Eisner or Suzanne Mendez
Consumer Expenditures .....	James Eisner or Jim Lande
Earnings .....	Stephen Steckler
Employment and Labor Productivity.....	Kenneth Lynch
International Telephone Service .....	Jim Lande
Lines and Payphones.....	James Eisner or Craig Stroup
Local Telephone Competition.....	James Eisner or Suzanne Mendez
Long Distance Telephone Industry.....	Jim Lande
Minutes .....	James Eisner
Mobile Wireless Service.....	James Eisner
Price Indices for Telephone Service .....	Jonathan Kraushaar
Price Levels.....	Jonathan Kraushaar or Jim Lande
Residential Telephone Usage.....	Kenneth Lynch
Revenues.....	Jim Lande
Subscribership.....	James Eisner
Technology and Infrastructure.....	Jonathan Kraushaar or Michael Goldstein
Telephone Numbers and Area Codes .....	Craig Stroup
Universal Service - High Cost .....	James Eisner
Universal Service – Lifeline/Link-Up .....	Suzanne Mendez or James Eisner
Universal Service – Rural Health Care.....	Craig Stroup
Universal Service – Schools and Libraries .....	Craig Stroup

### Electronic mail addresses are:

Craig Stroup.....	<a href="mailto:Craig.Stroup@fcc.gov">Craig.Stroup@fcc.gov</a>
James Eisner.....	<a href="mailto:James.Eisner@fcc.gov">James.Eisner@fcc.gov</a>
Jim Lande.....	<a href="mailto:Jim.Lande@fcc.gov">Jim.Lande@fcc.gov</a>
Jonathan Kraushaar.....	<a href="mailto:Jonathan.Kraushaar@fcc.gov">Jonathan.Kraushaar@fcc.gov</a>
Kenneth Lynch.....	<a href="mailto:Kenneth.Lynch@fcc.gov">Kenneth.Lynch@fcc.gov</a>
Michael Goldstein.....	<a href="mailto:Michael.Goldstein@fcc.gov">Michael.Goldstein@fcc.gov</a>
Stephen Steckler.....	<a href="mailto:Stephen.Steckler@fcc.gov">Stephen.Steckler@fcc.gov</a>
Suzanne Mendez .....	<a href="mailto:Suzanne.Mendez@fcc.gov">Suzanne.Mendez@fcc.gov</a>

## Customer Response

**Publication:** *Trends in Telephone Service – September 2010*

You can help us provide the best possible information to the public by completing this form and returning it to the Industry Analysis and Technology Division of the FCC's Wireline Competition Bureau.

1. Please check the category that best describes you:
- press
  - current telecommunications carrier
  - potential telecommunications carrier
  - business customer evaluating vendors/service options
  - consultant, law firm, lobbyist
  - other business customer
  - academic/student
  - residential customer
  - FCC employee
  - other federal government employee
  - state or local government employee
  - Other (please specify)

2. Please rate the report:
- |                      | Excellent | Good | Satisfactory | Poor | No opinion |
|----------------------|-----------|------|--------------|------|------------|
| Data accuracy        | ( )       | ( )  | ( )          | ( )  | ( )        |
| Data presentation    | ( )       | ( )  | ( )          | ( )  | ( )        |
| Timeliness of data   | ( )       | ( )  | ( )          | ( )  | ( )        |
| Completeness of data | ( )       | ( )  | ( )          | ( )  | ( )        |
| Text clarity         | ( )       | ( )  | ( )          | ( )  | ( )        |
| Completeness of text | ( )       | ( )  | ( )          | ( )  | ( )        |

3. Overall, how do you rate this report?
- |  | Excellent | Good | Satisfactory | Poor | No opinion |
|--|-----------|------|--------------|------|------------|
|  | ( )       | ( )  | ( )          | ( )  | ( )        |

4. How can this report be improved?

5. May we contact you to discuss possible improvements?

Name:

Telephone #:

To discuss the information in this report: call (202) 418-0940 or for users of TTY equipment, call (202) 418-0484		
Fax this response to	or	Mail this response to
202-418-0520		FCC/WCB/IATD Washington, DC 20554